A human rights-based, regime interaction approach to climate change and malnutrition: Reforming food systems for human and planetary health

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Abstract
The modern, global food system is unsustainable for both human and planetary health. The widespread consumption of highly processed foods and use of production systems that negatively affect the environment have led to a rise in nutrition-related diseases and exacerbated the effects of climate change. A comprehensive reform of global food systems and diets is needed to effectively respond to this problem, but the interference of food industry actors in health negotiations is diluting health policies at both domestic and international levels. This article establishes the concrete value of international legal responses grounded in human rights for tackling the global syndemic of climate change and malnutrition. The Framework Convention on Tobacco Control (FCTC) exemplifies how normative conflicts between the trade and health regimes can be overcome. Forming an effective and egalitarian response to malnutrition and climate change will require a rights-based, regime interaction approach that prioritizes human and planetary health over private interests.

Keywords
human and planetary health, global syndemic, human rights, food systems, climate change, nutrition-related non-communicable diseases (NCDs), WHO, FCTC

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1. INTRODUCTION

The modern industrial food system is damaging both human and planetary life and health.¹ Our model of food production and consumption has created diets that are increasingly reliant on highly processed foods, contributing to one third of the global population being affected by undernutrition or obesity.² Moreover, food production is responsible for approximately 30 percent of global greenhouse gas emissions.³ Climate change and malnutrition combined create risk factors for all chronic, or non-communicable, diseases (NCDs), including diabetes, cardiovascular disorders, cancers, and respiratory diseases. In 2019, The Lancet Commission published ‘The Global Syndemic of Obesity, Undernutrition, and Climate Change’, which portrays these phenomena as a ‘syndemic’, meaning ‘a synergy of epidemics, because they co-occur in time and place, interact with each other […] and share common underlying societal drivers’.⁴ The Lancet Commission urgently calls for policy and law to create more sustainable systems of living and eating in light of the damaging effects of modern diets and food systems on human health and the environment.⁵ The global syndemic is a human rights issue: it is incompatible with the rights to health, food, and a healthy environment. States have legal obligations to protect and promote human rights, and thus a duty to respond to this problem.⁶ However, human rights-based approaches (HRBAs) for responding to the syndemic have received minimal attention.⁷ This article assesses the value of human rights in responding to the global syndemic of climate change and malnutrition, proposing that international human rights law can provide a normative framework for reforming global food systems, but argues that this framework needs strengthening by interacting with other regimes.

The globalised nature of the food system connects various regimes of international law: trade, health, environment, and human rights. Involving different legal systems and global actors is thus essential for forming a solution. International environmental law norms (most importantly, the UN Framework Convention on Climate Change or UNFCCC), global health policies adopted under the auspices of the World Health Organisation (WHO) and nutritional recommendations from the Food and Agricultural Organisation (FAO) can all be used to guide States towards effective policies for reforming food systems in compliance with their human rights obligations. This article focuses particularly on the role of the WHO and global health law.

Sections 2 and 3 outline the problem and establish the importance of international legal responses to the syndemic. The added value of human rights for reforming food systems in an

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1. José Graziano da Silva, ‘How to Create Equitable Healthy Food Systems’ (FAO 2022) <www.fao.org/director-general/former-dg/da-silva/my-articles/detail/en/c/1203604/> accessed 11 July 2022.
2. These coexisting epidemics are known as the ‘double burden of malnutrition’ in World Health Organisation (WHO), ‘The double burden of malnutrition: policy brief’ (2017) WHO/NMH/NHD/17.3.
3. Michael A Clark and others, ‘Global food system emissions could preclude achieving the 1.5- and 2-degree C climate change targets’ (2020) 370 Science 705, 1.
4. The Lancet Commission on Obesity, ‘The Global Syndemic of Obesity, Undernutrition, and Climate Change: The Lancet Commission report’ (2019) 393 The Lancet 791, 791.
5. ibid.
6. The global syndemic regroups most of the threats to ‘human security’: food, health, and environmental security. Human security is defined as ‘protecting fundamental freedoms’ in Commission on Human Security, ‘Human Security Now’ (New York 2003) 4.
7. For the purposes of this article, a HRBA is understood as an approach grounded in international human rights law. It does not delve into the elements of a HRBA as a conceptual framework, as in eg: Office of the High Commissioner for Human Rights (OHCHR), ‘Summary Reflection on a Human Rights-Based Approach to Health’ (2015).
effective and egalitarian way is then outlined in section 4, followed by a discussion on the problematic role of the food industry, a key syndemic player, in section 5. Its lack of accountability under international human rights law and the fragmentation of international law, leading to conflicting norms and standards, is discussed. Section 6 outlines how normative conflicts between the public health and trade/investment regime have been overcome under the Framework Convention on Tobacco Control (FCTC), leading to positive outcomes for public health and ultimately proving that human rights can be upheld through other regimes.

Finally, section 7 proposes that the WHO should model its approach to diets on certain aspects of the FCTC in order to regulate the food industry effectively. Drawing on lessons from the FCTC, it makes recommendations for reforming food systems under an integrated approach, using regime interaction to strengthen the human rights framework. Ultimately, the syndemic response should draw on the strengths of international human rights law and overcome its weaknesses through its connections to other regimes to find effective and equitable solutions to the global syndemic.

2. THE PROBLEM: GLOBAL HEALTH AND ENVIRONMENTAL CHANGE

‘Malnutrition is the main cause of death and disease in the world’, according to the WHO. Malnutrition, encompassing undernutrition, overweight, and obesity, affects every country and over one third of the global population. It is a key risk factor for NCDs (including diabetes, cardiovascular diseases, cancers, and respiratory diseases) which are responsible for 71% of global deaths. Over the last fifty years, the availability of high-calorie, nutrient-poor foods, as well as global demand for meat, dairy, ultra-processed foods and sugary drinks, has skyrocketed – at the expense of micronutrient diversity and fruit and vegetable consumption. The globalisation of unhealthy diets is thus a major determinant in the rise in nutrition-related NCDs. Concurrently, globalisation has dramatically changed food systems. Increased resource use for crops and livestock production, the use of pesticides, and agricultural intensification to respond to population growth have aggravated toxic emissions in air and water sources, caused a decline in biodiversity, and eroded soils. Food systems drive deforestation, loss of biodiversity, and

8. Steve Hemsley, ‘‘Malnutrition is a world health crisis” says WHO Expert Dr Francesco Branca’, (WHO 26 September 2019) <www.who.int/news/item/26-09-2019-malnutrition-is-a-world-health-crisis> accessed 04 May 2022.
9. WHO, ‘Q&A on malnutrition’ (15 April 2020) <www.who.int/news-room/questions-and-answers/item/malnutrition> accessed 15 May 2022.
10. Ana Ayala and Benjamin Manson Meier, ‘A Human Rights Approach to the Health Implications of Food and Nutrition Security’ (2017) 38 Public Health Review 10, 3.
11. Lancet (n4) 798; Scientific evidence links obesity to the increased consumption of unhealthy foods, as stated in Allyn L Taylor, Emily Whelan Parento and Laura A Schmidt, ‘The Increasing Weight of Regulation: Countries Combat the Global Obesity Epidemic’ (2015) 90 Indiana Law Journal 257, 262.
12. Francesco Branca and others, ‘Transforming the food system to fight non-communicable diseases’ (2019) 364 British Medical Journal <https://doi.org/10.1136/bmj.l296.> accessed 25 September 2022.
13. Out of the 10 NCD progress monitoring indicators endorsed by the WHO in 2017, only 2 are being fully met according to data from 194 countries. WHO, ‘Noncommunicable diseases: progress monitor 2020’ (2020).
14. For more information see Intergovernmental Panel on Climate Change (IPCC), ‘Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems’ (2019).
are responsible for 20–35% of greenhouse gas emissions, according to the FAO.\textsuperscript{15} Modern global dietary patterns therefore have devastating impacts on the environment.

The link between food systems, climate change, and global health has been recognised by the WHO. A subsequent investigation of the mutually beneficial effects of environmental and NCD mitigation measures\textsuperscript{16} resulted in the consensus that these twin challenges would benefit from coordination of policy agendas.\textsuperscript{17} Global dietary patterns are therefore the problem and the solution because they sit at the centre of health and sustainability concerns.\textsuperscript{18} An international legal intervention appropriate to tackle both issues is urgently needed.\textsuperscript{19}

3. THE ROLE OF LAW

Since the twentieth century, law has increasingly been recognised as a public health tool.\textsuperscript{20} Through normative frameworks establishing legal responses to public health threats, law protects individual and community health by enforcing policies that guarantee people’s safety, access to health services, and healthcare infrastructure.\textsuperscript{21} Law can either be ‘hard’ (binding, legally enforceable obligations), or ‘soft’ (non-binding agreements often found at the international level).\textsuperscript{22} The progressive acceptance of the role of law in global health is visible in the emergence of global health law, which focuses on the international dimensions of health. This commonly includes the global governance regime developed and implemented by the WHO, or more broadly, ‘[all] the legal norms, processes and institutions needed to create the conditions for people throughout the world to attain the highest possible levels of physical and mental health’.\textsuperscript{23} Global health law can thus incorporate all legal fields touching upon public health.\textsuperscript{24}

The growing recognition of law’s function in NCD responses has led some to state that ‘the question is no longer whether […]’ but ‘how […] the law [can] be designed to support effective NCD prevention strategies and help States withstand the legal challenges they may face.’\textsuperscript{25} The most striking example of ‘hard’ international regulation of health-harming products is tobacco industry regulation, instigated by the FCTC in 2005.\textsuperscript{26} International instruments such as this,

\textsuperscript{15} FAO and WHO, ‘Sustainable healthy diets – Guiding principles’ (Rome 2019).
\textsuperscript{16} Sinead Boylan, Keith Syrett and Ruth Colagiuri, ‘Role of law at the non-communicable diseases-climate change interface: considerations for planetary and population health policy’ (2013) 126(6) Public Health 579, 580.
\textsuperscript{17} ibid.
\textsuperscript{18} Christine Parker and Hope Johnson, ‘Sustainable Healthy Food Choices: the promise of “holistic” dietary guidelines as a national and international policy springboard’ (2018) 18(1) Queensland University of Technology Law Review 1, 1.
\textsuperscript{19} Boylan and others (n 16) 580.
\textsuperscript{20} Anthony D Moulton and others, ‘The scientific basis for law as a public health tool’ (2009) 99 American Journal of Public Health 17, 17–24.
\textsuperscript{21} WHO, ‘The 10 essential public health operations’ (2012) <www.euro.who.int/__data/assets/pdf_file/0007/172762/ Strengthening-public-health-services-and-capacity-an-action-plan-for-Europe-Eng.pdf> accessed 11 July 2022.
\textsuperscript{22} For more detail on the differences between hard and soft law see Kenneth W Abbott and Duncan Snidal, ‘Hard and Soft Law in International Governance’ (2000) 54 International Organisation 421, 421.
\textsuperscript{23} Lawrence O Gostin and Allyn L Taylor, ‘Global Health Law: A Definition and Grand Challenges’ (2008) 1(1) Public Health Ethics 53, 55.
\textsuperscript{24} Jennifer Prah Ruger, ‘Normative Foundations of Global Health Law’ (2008) 96(2) The Georgetown Law Journal 423, 423.
\textsuperscript{25} Amandine Garde, ‘Global health law and non-communicable disease prevention: maximizing opportunities by understanding constraints’ in Gian Luca Burci, and Brigit Toebes (eds), Research Handbook on Global Health Law (Edward Elgar Publishing 2018) 409–10 (emphasis added).
\textsuperscript{26} Framework Convention on Tobacco Control (adopted 2003, entered into force 27 February 2005) UNTS 2302/166 (FCTC).
which prompted the implementation of tobacco control measures worldwide, impact vertically on national legislation. Concurrently, domestic norms can influence international law. For instance, Denmark’s trans-fat ban, which successfully decreased the number of cardiovascular disease deaths by 14.2 per 100,000 people per year, was implemented 15 years prior to the WHO’s 2018 initiative to eliminate trans-fats. The ban prompted opposition from the European Union ‘on the grounds that it would interfere with the free movement of goods within its borders’. However, Denmark’s use of ‘solid public health evidence’ successfully defeated the claim and set a European legislative precedent, so that by 2018, ‘7 countries in the European region [had] a legal ban on trans-fat’. This initiative therefore pioneered regulatory efforts not only at the WHO but also among other European countries, showing that domestic law can also have a horizontal effect influencing other States.

Legal interventions can thus be used as a ‘dynamic’, effective tool for addressing public health issues. The reciprocal relationship between domestic and international levels of law, and between domestic jurisdictions, should be seen as interactive and synergistic rather than as a straightforward vertical relationship. A key legal participant in diets is the trade regime: the establishment of the WTO in 1995 provoked a reduction in trade barriers and increased industry’s role in shaping food and dietary preferences through aggressive marketing of unhealthy foods. This, in turn, precipitated the rise in nutrition-related NCDs. A legal approach to increasing food industry accountability would balance out this deregulation process. Law is therefore an essential tool in the development of NCD prevention and control strategies, and is key in the syndemic response. International law, in particular, sets global benchmarks against which States can measure their actions. International targets such as the Sustainable Development Goals (SDGs) are important for the framework they provide, setting an authoritative and high standard. Their ‘softness’ allows for the participation of a larger number of actors from the international arena, such as non-governmental organisations and

27. Eg: Ukraine, after ratifying the WHO FCTC on 6 June 2006, developed a national programme which increased excise taxes seven-fold and the price of cigarettes three-fold. Ratification of the FCTC is said to have given it ‘the momentum’ required to successfully put tobacco taxes on the agenda. A combination of actors at both levels is thus needed to implement the international framework at the domestic level. WHO, ‘Article 6: Price and tax measures to reduce the demand for tobacco’ (Tobacco Control in Practice, 2013) 11.
28. WHO, ‘REPLACE Trans-fat: An Action Package to Eliminate Industrially-produced Trans-fatty Acids’ (2018) WHO/NMH/NHD/18.4.
29. WHO newsroom, ‘Denmark, trans fat ban pioneer: lessons for other countries’ (14 May 2018) <www.who.int/news-room/feature-stories/detail/denmark-trans-fat-ban-pioneer-lessons-for-other-countries> accessed 05 May 2022; see also Tino Bech-Larsen and Jessica Aschemann-Witzel, ‘A macromarketing perspective on food safety regulation: the Danish ban on trans-fatty acids’ (2012) 32(2) Journal of Macromarketing 208, 208–219.
30. WHO newsroom (supra).
31. Lawrence O Gostin and others, ‘Advancing the Right to Health-The Vital Role of Law’ (2017) 107(11) American Journal of Public Health 1755, 1755.
32. Gian Luca Burci, ‘A Global Legal Instrument for Alcohol Control: Options, Prospects and Challenges’ (2020) 12 European Journal of Risk Regulation 2, 1, 2.
33. Garde explains that ‘trade liberalization may have a detrimental impact on public health by promoting the trade and, indirectly, the consumption of goods associated with growing rates of NCDs’ and shows how ‘several empirical studies have established a link between trade in tobacco products and increased demand for such products, and between trade liberalization and increasing rates of obesity and the expansion of processed food markets in developing countries.’ Garde (n 25) 411.
34. ibid 397.
35. UN General Assembly (UNGA), ‘Transforming our world: the 2030 Agenda for Sustainable Development’ (21 October 2015) UN Doc A/RES/70/1.
civil society. Soft norms, often seen as preferable on their own terms, may facilitate compromise in controversial areas where hard law is difficult to realise. Both hard and soft governance thus have potential to effectively regulate health issues. Most importantly, an international strategy for reforming food systems should guide States towards effective national policies, stimulate industry-level accountability, and put diets and climate change at the centre of the global debate.

4. THE HUMAN RIGHTS FRAMEWORK

4.1. THE VALUE OF HUMAN RIGHTS

International human rights law is a valuable but overlooked tool offering many advantages for tackling climate change and unhealthy diets. First, it aims to provide protection for the weakest. This is crucial as the greatest burden of the syndemic is currently borne by those with the least means to respond to it, with 80% of NCD deaths occurring in low- and middle-income countries. In wealthier countries, vulnerable and marginalised groups are more affected by NCDs than higher-income groups. In terms of climate change, the poorest 1 billion people in the world contribute only 3% of global pollution, yet these populations are most affected by environmental damage. Economic inequalities have been linked to worse health outcomes. Consequently, integrating equity into public health laws can mitigate the root causes of ill-health. Governance addressing malnutrition and climate change should therefore strive to alleviate these inequalities, and international human rights law, which guarantees the right to equal treatment through its core principles of equality and non-discrimination, is key for embedding these in the syndemic response.

Second, international human rights law offers a comprehensive, normative foundation covering the syndemic issues. When States ratify a human rights treaty, they become bound by the obligations contained therein and commit themselves to ‘respect, protect and fulfil’ individual freedoms – a tripartite breakdown of their duties to ‘do no harm’, protect from abuses, and take positive action, respectively. International human rights law thus ‘identifies who has rights (rights-holders) and what freedoms and entitlements they have […] as well as the obligations of those responsible for making sure rights-holders are enjoying their rights (duty-bearers)’. Under Articles 11 and 36. Kenneth W Abbott and Duncan Snidal, ‘Hard and Soft Law in International Governance’ (2000) 54 International Organisation 421, 421.

37. WHO, ‘Global status report on noncommunicable diseases—2010’ (Geneva 2010) <https://apps.who.int/iris/handle/10665/44579> accessed 06 May 2022, vii.

38. Branca (n 12).

39. Lancet and University College London Institute for Global Health Commission, ‘Managing the Health Effects of Climate Change’ (2009) 373 The Lancet 1693, 1701.

40. Burton Singer and Carol Ryff, ‘The Influence of Inequality on Health Outcomes’ in Burton Singer and Carol Ryff (eds), New Horizons in Health: An Integrative Approach (National Academies Press 2001).

41. Lawrence O Gostin and others, ‘The legal determinants of health: harnessing the power of law for global health and sustainable development’ (2019) 393 The Lancet 1857, 1883. This is also recommended by the WHO, as part of its adoption of a HRBA.

42. Universal Declaration of Human Rights (adopted 10 December 1948) UNGA Res 217 A(III) art 7 (UDHR).

43. SERAC v Nigeria (27 May 2002) African Commission on Human and Peoples’ Rights Case No ACHPR/COMM/A044/1 paras 44–48; FAO, ‘Justiciability of the Right to Food’ in The Right to Food Guidelines: Information Papers and Case Studies (FAO 2006) 80–83; UN CESCR, ‘General Comment 12: The Right to Adequate Food’ (1999) E/C.12/1999/5 (GC 12).

44. OHCHR (n7) 4.
12 of the International Covenant on Economic, Social and Cultural Rights (ICESCR), States (as duty-bearers) have legal obligations to realise the rights to food and health of their populations.\textsuperscript{45} The syndemic engages both of these rights, as well as the emerging right to a healthy environment.\textsuperscript{46} Individuals (as rights-holders) often have legal avenues to raise claims against the State pertaining to breaches of these rights.\textsuperscript{47}

Certain aspects of the rights to food and health are legally enforceable.\textsuperscript{48} Several domestic constitutions recognise their justiciability: \textsuperscript{49} for example, the constitutional protection of the right to health proved essential in the fight for access to HIV/AIDS antiretrovirals (ARVs) in South Africa. In \textit{Treatment Action Campaign (TAC) and others v Minister of Health}, the South African Constitutional Court held that, as socio-economic rights are ‘clearly’ justiciable, the limited availability and accessibility of Nevirapine constituted an unreasonable restriction to the progressive realisation of the right to health care.\textsuperscript{50} After the judgment, the government adopted an official policy of treating HIV with ARVs,\textsuperscript{51} which is estimated to have saved 6.15 million adult life years between 2000–2014.\textsuperscript{52} The TAC case shaped the current South African HIV/AIDS policy, demonstrating how litigation in individual cases can improve public health policies overall, and it created judicial precedent of using legal action to enforce constitutional human rights

\textsuperscript{45} International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 03 January 1976) 993 UNTS 4 (ICESCR), arts 11, 12.

\textsuperscript{46} The right to a clean environment exists in regional treaties and in over 60 national constitutions. The OHCHR states: ‘while the universal human rights treaties do not refer to a specific right to a safe and healthy environment, the United Nations human rights treaty bodies all recognise the intrinsic link between the environment and the realization of a range of human rights, such as […] health [and] food’ in UN HRC, ‘Report of the OHCHR on the relationship between climate change and human rights’, UN Doc. A/HRC/10/61, 15 January 2009, para 18; The growing number of cases in international climate litigation relying on Article 2 of the European Convention on Human Rights (ECHR) (the right to life) to find violations in the environmental field not only shows that HR are increasingly used as support arguments in environmental litigation, but also that environmental damage can violate one of the most basic human rights, eg African Charter on Human and Peoples’ Rights (adopted 27 June 1981, entered into force 21 October 1986) 21 ILM 58 art 24 (African Charter); Kanive Ebeku, ‘The Right to a Satisfactory Environment and the Africa Commission’ (2003) 3 Africa Human Rights Law Journal 150; United Nations Human Rights Council (UNHRC), ‘Report of the OHCHR on the relationship between climate change and human rights’ (15 January 2009) UN Doc A/HRC/10/61 para 18; European Convention for the Protection of Human Rights and Fundamental Freedoms (European Convention on Human Rights, as amended) 5 (ECHR).

\textsuperscript{47} In the case of countries that have ratified the Optional Protocol to the ICESCR (OP-ICESCR), or enshrined HR in their national constitutions.

\textsuperscript{48} GC 12 (n43). Although the advisability of making a right to food ‘justiciable in all countries’ has been doubted, see FAO (n43) 72.

\textsuperscript{49} Eg Article 27 of the South African Constitution, which recognises food as a self-standing human right. Constitutional Assembly of South Africa, \textit{The Constitution of the Republic of South Africa} (adopted on 8 May 1996, amended on 11 October 1996). The CESCR has also confirmed the justiciability of ESC rights. CESCR, ‘General Comment No. 9: The domestic application of the Covenant’ (1998) E/C.12/1998/24 (GC9) para 10.

\textsuperscript{50} \textit{Treatment Action Campaign and others v Minister of Health and others} (2002) High Court of South Africa Transvaal Provincial Div Case No 21182/2001 5 SA 721 (CC) [50]; Zahara Nampewo, Jennifer Heaven Mike and Jonathan Wolff, ‘Respecting, protecting and fulfilling the human right to health’ (2022) 21 International Journal for Equity in Health 36.

\textsuperscript{51} Vuviseka Dubula, ‘A decade of fighting for our lives’ \textit{UN Chronicle} <www.un.org/en/chronicle/article/decade-fighting-our-lives> accessed 15 July 2022.

\textsuperscript{52} Leigh F Johnson and others, ‘Estimating the impact of antiretroviral treatment on adult mortality trends in South Africa: A mathematical modelling study’ (2017) 14(12) PLoS medicine e1002468 <https://doi.org/10.1371/journal.pmed.1002468> accessed 25 September 2022.
It also proves the value of civil society’s promotion of human rights, as the TAC successfully mobilised affected groups to campaign for better treatment through health education strategies. Human rights can therefore be enforced nationally, and these legal accountability procedures can help to shape policies improving individual access to healthy and sustainable foods.

4.2. Establishing the ‘Syndemic Rights’

The Committee on Economic, Social and Cultural Rights (CESCR), mandated with monitoring the ICESCR’s implementation, has interpreted the right to health as containing four essential qualifiers: availability, accessibility, acceptability, and quality (AAAQ). The underlying determinants of health are composed of ‘a wide range of socio-economic factors that promote conditions in which people can lead a healthy life’, including food and nutrition. The right to health is thus closely linked to the right to food, which entails access to ‘sufficient, adequate, and culturally acceptable food that is produced and consumed sustainably, preserving access to food for future generations’. In a similar way to the AAAQ, the right to food contains four components necessary for its realisation: availability, accessibility, adequacy, and sustainability. Adequacy is stressed here: the right to food relates to the right to ‘a standard of nutritional quality and not just to a minimum quantity of calories’. Moreover, it demands ‘both sustainability and satisfaction of dietary needs’.

With nutrient-poor diets being among the main causes of malnutrition, these twin qualifiers of adequacy and sustainability encompass both the health and environmental issues at the core of the syndemic. The ‘greening’ of human rights in recent decades entails ‘the understanding that a healthy environment is of fundamental importance to the full enjoyment of a vast range of human rights, including the rights to […] health [and] food.’ Environmental issues can thus be addressed through the right to health’s underlying determinants, which include a healthy environment, and the right to food, which explicitly refers to sustainability and obliges States.

To improve methods of production, conservation and distribution of food by making full use of technical and scientific knowledge, by disseminating knowledge of the principles of nutrition and by developing

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53. Mark Heywood, ‘South Africa’s Treatment Action Campaign: combining law and social mobilization to realize the right to health’ (2009) 1 Journal of Human Rights Practice 14, 14–36; Nampewo and others (n50).
54. UN CESCR, ‘General Comment 14: The Right to the Highest Attainable Standard of Health’ (2000) E/C.12/2000/4 (GC 14).
55. ibid para 4.
56. Article 11 recognises ‘the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions.’ From this right, a ‘right to adequate food’ has been extrapolated, with States ‘recogniz[ing] the fundamental right of everyone to be free from hunger’. ICESCR (n 45) Article 11.
57. UNHRC, ‘Report of the Special Rapporteur on the right to food, Olivier De Schutter: Final report: The transformative potential of the right to food’ (2014) UN Doc A/HRC/25/57.
58. Emilie K Aguirre, ‘The Importance of the Right to Food for Achieving Global Health’ (2016) IX Global Health Governance 164, 164.
59. Parker and Johnson (n 18) 9.
60. UNHRC, ‘Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment’ (19 July 2018) UN Doc A/HRC/73/188 paras 12–15.
61. WHO, ‘Substantive issues arising in the implementation of the International Covenant on Economic, Social and Cultural Rights’ (Geneva, WHO 2000).
or reforming agrarian systems in such a way as to achieve the most efficient development and utilization of natural resources.\textsuperscript{62}

Under the right to food, States must therefore ensure that food systems use natural resources efficiently. A self-standing right to a healthy and sustainable environment is also emerging,\textsuperscript{63} which, if adopted, should require ‘a system of food production and consumption that mitigates the health inequities and the effects of climate change’ and ‘include […] the right to environments that promote healthy food, active living, and active transportation and that permit physical activity at workplaces and educational institutes, including usable green spaces.’\textsuperscript{64} The emerging right to a healthy and sustainable environment combined with the rights to food and health are thus directly relevant to syndemic concerns and contain important potential for developing legal responses to the problem. Combined, they represent States’ binding commitments to empower individuals to pursue healthy and sustainable lives and should act as a mutually reinforcing framework.

Human rights bodies could refer more consistently to international standards from other regimes (and their corresponding actors) to guarantee that the syndemic response defines concrete strategies for reforming the food system. For instance, the UN Human Rights Council (HRC) states that environmental standards set in compliance with human rights should ‘be consistent with all relevant international environmental, health and safety standards, such as those promulgated by the […] WHO’.\textsuperscript{65} The CESCR also finds that fulfilling the right to health comprises a distinct requirement of health promotion,\textsuperscript{66} including ‘the dissemination of appropriate information relating to healthy lifestyles and nutrition’,\textsuperscript{67} and that the WHO is critically important in this regard.\textsuperscript{68} These references could be more consistent, specific, and clear regarding how States should consider other norms and bodies when implementing human rights. The WHO, in turn, should provide the technical guidance for States’ implementation of human rights, ‘translating’ the human rights framework into concrete legal strategies and holding States to account for action on health.

The interdependence of the rights to food, health, and a healthy environment – the syndemic rights – are thus a key starting point for exploiting the advantages of the human rights framework and forming a comprehensive, normative, and multidisciplinary foundation for reforming diets. The international syndemic response should guide States towards effective national policies for creating and sustaining ‘enabling food environments’, which entails making ‘the healthy and sustainable food choice the default choice, while limiting the promotional opportunities for foods associated with unhealthy and unsustainable diets’.\textsuperscript{69} Nonetheless, important challenges exist. International human rights law lacks ‘effective, comprehensive follow-up mechanisms […] at the national-level’ and thus has relatively weak enforcement mechanisms.\textsuperscript{70} This is exacerbated by the lack of private

\textsuperscript{62} ICESCR (n45) Article 11(2)(a).
\textsuperscript{63} See (n 46).
\textsuperscript{64} Lancet (n 4) 819, as interpreted by Sonja J Vermeulen and others, ‘Climate Change and Food Systems’ (2012) 37 Annual Review of Environment and Resources 195, 195–222.
\textsuperscript{65} A/HRC/73/188 (n 60) 7.
\textsuperscript{66} GC14 (n 54).
\textsuperscript{67} ibid para 37.
\textsuperscript{68} ibid (n 54) footnote 23.
\textsuperscript{69} European Public Health Alliance (EPHA), ‘What are “food environments”?’ (20 December 2019) <https://epha.org/what-are-food-environments/> accessed 18 May 2022.
\textsuperscript{70} OHCHR, ‘Concept paper on the high commissioner’s proposal for a unified standing treaty body’ (2006) HRI/MC/2006/2 para 26.
actor accountability, and the fragmentation of international law, which has led to issues of conflicting norms, endangering human rights implementation when faced with challenges from the food industry.

5. HUMAN RIGHTS: CHALLENGES TO IMPLEMENTATION

5.1. PRIVATE ACTOR ACCOUNTABILITY?

Inevitably, the food industry plays a major role in diets, operating independently of States and not bound under international human rights law. Nonetheless, under its duty to protect human rights, governments must take positive action to prevent violations by other actors, including food corporations. This includes ‘requiring business entities to exercise human rights due diligence in order to identify, prevent and mitigate the risks of violations of Covenant rights’. Consensus has formed around the notion that transforming food environments is necessary to effectively change individuals’ food consumption, which implies the need to regulate the food industry to enable consumers to make healthy and sustainable choices. Imposing human rights due diligence on food corporations is thus essential for protecting the syndemic rights. Governments should, accordingly, impose regulation such as food taxes and subsidies, as well as labelling and marketing restrictions – in other words, legislative limitations – on the food industry. The CESCR confirms this, holding that due diligence measures may also cover ‘restricting marketing and advertising of certain goods and services in order to protect public health, such as of tobacco products, in line with the [FCTC]’. Extending these measures to marketing restrictions within the food industry is therefore also acceptable. The CESCR further asserts this in relation to intellectual property rights, which may also hinder the realisation of human rights: ‘States parties have a duty to prevent unreasonably high costs for access to [...] food production [...] from undermining the rights of large segments of the population to health [and] food’. Ultimately, intellectual property rights are ‘a social product with a social function’, not to be equated with human rights. The Committee further details States obligations with regard to diets, including to ‘redirect investments in agricultural development away from the exclusive focus on boosting the production of cereal crops – rice, wheat and maize – towards support for healthy diets, including adequate measures to reduce the excessive intake of sugar’. The Committee on the Rights of the Child (CRC) also mandates States to regulate targeted advertisements to children ‘to prevent children’s exposure to the promotion of unhealthy

71. UN CESCR, ‘General comment No. 24 (2017) on State obligations under the International Covenant on Economic, Social and Cultural Rights in the context of business activities’ (2017) E/C.12/GC/24 (GC 24).
72. ibid para 16.
73. WHO, ‘Report of the Commission on Ending Childhood Obesity: implementation plan: executive summary’ (2017) WHO/NMH/PND/ECHO/17.1.
74. Anne Marie Thow and Benn McGrady, ‘Protecting policy space for public health nutrition in an era of international investment agreements’ (2014) 92 Bulletin of the World Health Organization 139, 139.
75. The EU Healthy Food Environment Policy Index (Food-EPI) identifies 5 priority policy actions for creating healthy food environments, which include legislative bans on trans fats, VAT exemptions on fruit and vegetables and restrictions on the marketing of HFSS foods for children. Sanne K Djojosoeparto and others, ‘The Healthy Food Environment Policy Index (Food-EPI): European Union. An assessment of EU-level policies influencing food environments and priority actions to create healthy food environments in the EU’ (Utrecht 2021).
76. GC 24 (n71), para 19.
77. CESCR, ‘General Comment No 25 on science and economic, social and cultural rights’ (2020) E/C.12/GC/25 (GC 25) para 62.
78. ibid.
79. ibid.
products. It is therefore clear that States’ human rights obligations extend to regulating private food actors when their activities interfere with syndemic rights. The application of human rights in the private sphere is known as ‘indirect horizontal effect’: while the State is held directly responsible for the violation, the non-State actor is indirectly obliged to comply.

In parallel, theCESCR recently reaffirmed businesses’ human rights responsibilities in the Covid-19 context. They are obliged, ‘as a minimum, to respect Covenant rights’, and urged to prioritise health rights over intellectual property rights. This ‘corporate responsibility to protect’ was endorsed in 2011 through various non-binding instruments emphasising the responsibilities of non-State actors vis-à-vis human rights. However, regulating non-State actors, which lack legally enforceable and direct accountability under international human rights law, remains difficult. This is problematic, as the food industry can significantly obstruct States’ abilities to realise individuals’ syndemic rights.

### 5.2. Fragmentation: The Challenges of Regulating ‘Big Food’

The expansion of international law over the last half-century has led to the emergence of multiple specialised regimes, such as international human rights law, international environmental law, trade and investment law – a phenomenon known as fragmentation. This has led to issues of conflicting norms, with no clear hierarchy between these regimes. States may thus face difficulties implementing their obligations under the syndemic rights when these conflict with other international rules, such as trade regulations. Moreover, food industries (commonly referred to as ‘Big Food’) frequently engage in aggressive lobbying against the adoption of strict health regulations, promoting weaker policies to advance their own interests. Big Food’s interference in the development of health strategies combined with its lack of direct accountability under international human rights law is a major obstacle to effectively responding to the syndemic. These industries often challenge States when they impose trade-restrictive measures on them to protect the syndemic rights. States’ regulatory autonomy in the field of health is therefore limited by their competing trade and investment agreements, as jurisprudence indicates that ‘particularly stringent health claims regulations will be challenged as a trade barrier’. For example, Chile’s legislation mandating front of pack nutrition labelling on products with high fat, sugar, or salt content was challenged by a US domestic trade association over its legality under WTO law, a legal battle compounded by the food industry’s aggressive lobbying against the policy.

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80. CRC, ‘General Comment No 25 on children’s rights in relation to the digital environment’ (2021) CRC/C/GC/25 para 97.
81. Lottie Lane, ‘The Horizontal Effect of International Human Rights Law in Practice’ (2018) 5 European Journal of Comparative Law and Governance 5, 5–88.
82. CESCR, ‘Statement on universal and equitable access to vaccines for COVID-19’ (2020) E/C.12/2020/2 para 7 (emphasis added).
83. UN, ‘Guiding principles on business and human rights: Implementing the United Nations "Protect, Respect and Remedy" framework’ (New York and Geneva 2011) para 3.
84. Corinna Hawkes, ‘Nutrition Labels and Health Claims: the global regulatory environment’ (WHO 2004) 65.
85. The Grocery Manufacturers Association (GMA) argued that Chile’s new legislation was ‘more trade restrictive than necessary’. GMA, Comments on the Proposal from Chile ‘Proposed Amendment to the Chilean Food Health Regulations, Supreme Decree No. 977/96’ (Washington, 2014).
86. Wimalin Rimpekool and others, ‘Food and nutrition labelling in Thailand: a long march from subsistence producers to international traders’ (2015) 56 Food Policy 59, 64; Tim Dorlach and Paul Mertenskötter, ‘Interpreters of International Economic Law: Corporations and Bureaucrats in Contest over Chile’s Nutrition Label’ (2020) 54 Law and Society Review 571, 572.
States lack the technical legal capacity to defend against such challenges. Big Food’s political and corporate power creates a clear ‘imbalance between the strong global policy norms regarding trade (economic interests) and weak global policy norms regarding nutrition policy’ (health interests).

Conflicts of interest between private actors and syndemic concerns also arise under international investment law. In the climate field, challenges are levelled under international investment law when regulations complying with climate treaties trigger State liability under investment treaties in the energy field, most notably the Energy Charter Treaty. This has also occurred with food: in 2021, a cereal company started proceedings against Mexico for implementing a labelling regulation on ultra-processed foods. Compensation costs are high in investor-State proceedings, with disputes costing governments an average of 315.5 million USD between 2017 and 2020. The threat of a lawsuit ‘raises the cost of policy action’, which may have a chilling effect on States’ willingness to adopt domestic measures complying with climate and/or health regulations, and can discourage other countries from following their example.

87. ‘Big Food’ uses lobbying but also ‘public outreach and the media to present their views on the nutritional aspects of their products, which shapes public perceptions and the broader regulatory environment’, as well as ‘participat[ing] in nutritionally-focused public-private partnerships’, through which they seek to ‘influence policy and governance [in the food sector]’. Jennifer Clapp, ‘Big Food, Nutritionism, and Corporate Power’ (2016) 14 Corporate Power 1, 1–18.
88. Anne Marie Thow and others, ‘Nutrition labelling is a trade policy issue: lessons from an analysis of specific trade concerns at the World Trade Organization’ (2018) 33 Health Promotion International 561, 568.
89. The United Nations Framework Convention on Climate Change (UNFCCC) (adopted 9 May 1992, entered into force 21 March 1994) 1771 UNTS 107; Energy Charter Treaty (ECT) (adopted 17 December 1994) 2080 UNTS 100; Stan Putter, ‘The Netherlands Coal Phase-Out and the Resulting (RWE and Uniper) ICSID Arbitrations’ (Kluwer Arbitration Blog 2021) <http://arbitrationblog.kluwerarbitration.com/2021/08/24/the-netherlands-coal-phase-out-and-the-resulting-rwe-and-uniper-icsid-arbitrations/> accessed 06 May 2022. In 2021, the Netherlands was challenged by two utility companies, RWE and Uniper, for planning to phase out coal plants by 2030, in line with its commitments under the UNFCCC. The companies complained under the Energy Charter Treaty on the basis that the plan will not leave sufficient time to become carbon-neutral. Both seek compensation. RWE AG and RWE Eemshaven Holding BV v Kingdom of the Netherlands (pending, introduced 02 February 2021) ICSID Case No ARB/21/4; Uniper SE, Uniper Benelux Holding BV and Uniper Benelux NV v Kingdom of the Netherlands (pending, introduced 30 April 2021) ICSID Case No ARB/21/22.
90. Nora Mardirossian and Lise Johnson, ‘Children’s Cereal Company v. Mexico & the Corporate Use of Investor-State Dispute Settlement to Influence Policymaking’ (Columbia Center on Sustainable Investment 30 November 2021) <https://ccsi.columbia.edu/news/childrens-cereal-company-v-mexico-corporate-use-investor-state-dispute-settlement-influence> accessed 11 May 2022.
91. Yarik Kryvoi, ‘Empirical Study: Costs, Damages and Duration in Investor-State Arbitration’ (British Institute of International and Comparative Law 2021) <www.biicl.org/publications/empirical-study-costs-damages-and-duration-in-investor-state-arbitration?cookieisset=1&ts=1651041084> accessed 06 May 2022, 28.
92. Mardirossian and Johnson (n 90).
93. Regulatory chill is when ‘[i]n some circumstances, governments will respond to a high (perceived) threat of investment arbitration by failing to enact or enforce bona fide regulatory measures (or by modifying measures to such an extent that their original intent is undermined or their effectiveness is severely diminished).’ Kyla Tienhaara ‘Regulatory Chill and the Threat of Arbitration: A View from Political Science’ in Chester Brown and Kate Miles (eds) Evolution in Investment Treaty Law and Arbitration (Cambridge 2011) 606, 610.
94. Joana Setzer and Catherine Higham, ‘Investor-State Dispute Settlement as a new avenue for climate change litigation’ (Grantham Research Institute 2021) <www.lse.ac.uk/granthaminstitute/news/investor-state-dispute-settlement-as-a-new-avenue-for-climate-change-litigation/> accessed 06 May 2022.
6. RESOLVING NORMATIVE CONFLICTS THROUGH REGIME INTERACTION

In 2006, the International Law Commission (ILC) addressed the problem of fragmentation.\(^95\) It recalled customary law principles which require interpreting treaties in light of other rules and principles of international law applicable between the parties, including human rights (systemic interpretation).\(^96\) Margaret Young elaborated on these recommendations, arguing for a ‘legal framework of regime interaction’ to address fragmentation.\(^97\) Young claims: the ‘productive friction of regime interaction may lead to a more responsive and effective international legal system than the sum of the constituent regimes.’\(^98\)

Regime interaction is crucial for regulating diets as it allows the normative framework of human rights to be upheld by other regimes and can lead to positive outcomes for the syndemic rights. Systemic interpretation in favour of human rights has been used in both national and international litigation. The FCTC—a treaty ‘guaranteeing the human rights to health’\(^99\)—illustrates how productive regime interaction between the trade, public health, and human rights regimes has allowed tobacco-control measures (TCMs) to withstand normative challenges from States and industry.

6.1. REGIME INTERACTION AT THE WTO: PLAIN PACKAGING

Regime interaction under the FCTC has led to favourable outcomes for public health measures in trade and investment disputes. At the WTO, this occurs through ‘balancing’ assessments which involve evaluating the necessity and proportionality of a measure to determine whether it violates trade laws. This is coherent with the systemic interpretation rule.\(^100\) WTO dispute settlement procedures must therefore consider States’ public health commitments, including the FCTC, as part of the ‘relevant rules […] applicable between WTO members’\(^101\) when interpreting WTO agreements. TCMs adopted in pursuit of FCTC obligations that are not overly trade-restrictive will thus generally withstand normative challenges based on WTO rules. In *Australia – Tobacco Plain Packaging*, the Panel determined that ‘the improvement of public health by reducing the use of, and exposure to, tobacco products is a “legitimate objective” in the context of article 2.2 of the Technical Barriers to Trade (TBT) agreement’.\(^102\) Further,
these measures – based on FCTC Article 6 – were not ‘more trade-restrictive than necessary’ to achieve the legitimate objective (proportionality test). Balancing assessments are applied to identify whether a measure is, for example, a protectionist measure prioritising domestic products, hence violating WTO law, or a ‘bona fide public health measure’, in which case outcomes tend to favour health. A non-discriminatory, FCTC-compliant public health measure is thus likely to be found compatible with WTO law. FCTC implementation and the adjudicatory bodies’ deference to public health protection as a legitimate objective is a valuable example of regime interaction which could also function for regulating diets.

6.2. PHILIP MORRIS AND THE ROLE OF THE FCTC

Investment tribunals may also consider legal conflicts in light of States’ public health and human rights obligations under a regime interaction approach. The Philip Morris judgment, in which the tribunal upheld the legality of TCMs enacted by Uruguay to protect public health, underscores the FCTC’s importance in three respects. First, it sets judicial precedent of systemic interpretation leading to favourable outcomes for public health and human rights under international investment law. Unlike in WTO adjudication, investment arbitration tribunals rarely use systemic interpretation to resolve legal conflicts, despite most investment treaties providing for this. However, in Philip Morris, the tribunal referred explicitly to the ‘particular relevance’ of the FCTC, finding that Uruguay’s measures were ‘adopted in good faith’, ‘non-discriminatory’, ‘proportionate’, and ‘effective means to protecting public health’. The balancing tests adopted here – similar to those at the WTO – led to the tribunal upholding the legality of Uruguay’s TCMs, dismissing Philip Morris’ claims.

Second, the judgment reflects the tribunal’s willingness to accept States’ ‘right to regulate’, a central aspect of their duty to fulfil human rights, even when this conflicts with investment agreements. The UN High Commissioner for Human Rights states: ‘to the extent that investment agreements concern human rights issues, States have a duty to regulate (the duty to fulfil human rights).’ The FCTC allowed the tribunal to directly engage with human rights arguments, when assessing ‘the conflicting obligations of Uruguay […] (the investors’ rights) and the right to health of its population under external rules (other international agreements).’ Without referring to other human rights treaties, the tribunal posits the FCTC as the international agreement protecting the right to health. Thus, the tribunals’ deference to States’ regulatory freedom in measures pertaining to the right to health is reflective of the FCTC’s value as a public health

103. Article 26(6) of the ECT provides that tribunals ‘shall decide the issues in dispute in accordance with this Treaty and applicable rules and principles of international law.’ (n 89) (emphasis added); See also art 42 of ICSID Convention. The ICSID recognised this in Urbaser v Argentina. Convention on the Settlement of Investment Disputes Between States and Nationals of Other States (date) 575 UNTS 159 (ICSID); Aceris Law LLC, ‘Human rights law and investment arbitration’ (Aceris Law 2021) www.acerislaw.com/human-rights-law-and-investment-arbitration/ accessed 06 May 2022; Urbaser SA and Consorcio de Aguas Bilbao Bizkaia, Bilbao Biskaia Ur Partzuergoa v The Argentine Republic (date) ICSID Case No ARB/07/26.
104. Philip Morris (n 99) [304].
105. UN High Commissioner for Human Rights, ‘Report on Human Rights, Trade and Investment’ (2003) E/CN.4/Sub.2/2003/9 para 28.
106. ibid.
107. Monica Feria-Tinta, ‘Like Oil and Water? Human Rights in Investment Arbitration in the Wake of Philip Morris v. Uruguay’ (2017) 34 Journal of International Arbitration 601–630.
108. Except, erroneously, the ECHR, in footnote 403. See Feria-Tinta (n 107) 618.
tool protecting human rights,\(^{109}\) despite not being a human rights treaty. The FCTC acquires the role of reinforcing the relevance and importance of the right to health in such judgments, demonstrating how human rights and health law mechanisms can complement and reinforce each other, and ‘possibly sending a signal for potential future arbitrations’.\(^{110}\)

Finally, *Philip Morris* highlights the role of international organisations (IOs) in supporting governments to implement public health policies. Both the WHO and the Pan-American Health Organisation (PAHO) submitted separate amicus briefs to the tribunal. The WHO brief detailed evidence of tobacco-related health risks and the rationale for Uruguay’s measures, without adopting a position on the dispute. Both briefs also described State practice in tobacco control and supportive of Uruguay’s measures.\(^{111}\) This illustrates the value of regime interaction and the function of IOs in guiding tribunals to understand the law in the context of other systems, rather than in a vacuum. The briefs may have assisted the tribunals’ reasoning by helping it to understand the implications of its judgment. Finally, this also underscores the importance of IOs in supporting States in their health policy implementation.\(^{112}\) The tribunal’s acceptance of the brief demonstrates the WHO’s potential weight in international forums, and the need for it to continuously back States’ rights to regulate to protect human rights. The FCTC is so far the only example of a global health treaty standing up to the private sector. Many lessons must be drawn from it in addressing the syndemic.

### 6.3. Lessons from the FCTC

The tobacco example could thus pave the way for effectively reforming diets. The acceptance of FCTC-compliant public health-based measures in litigation supports the argument that regime interaction can lead to the interpretation of international rules in favour of the right to health. Key to achieving a similar outcome for diets and climate change is ensuring that any future syndemic legislative guidance is evidence-based and supported by the relevant IOs.\(^{113}\) The WHO brief in *Philip Morris* was found to be unbiased and probably influenced the court by providing empirical evidence of tobacco’s negative effects on health and State practice of successful tobacco control policies.

The support of IOs will also encourage States to be bolder in their syndemic policies with the knowledge that tobacco litigation has prioritised health over private interests. The legal precedent in *Plain Packaging* of trade-restrictive measures pursued in the interest of health withstanding WTO investigation has stimulated other States to follow Australia’s example – the number of States with plain packaging rules almost doubled within 2 years.\(^{114}\) This has created a sense of

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\(^{109}\) Amandine Garde & Jure Zrilic, ‘International Investment Law and Non-Communicable Diseases Prevention’ (2020) 21 The Journal of World Investment & Trade 649, 649–673.

\(^{110}\) ibid 666.

\(^{111}\) Benn McGrady, ‘The Influential Amici in Philip Morris v. Uruguay: A new role for intergovernmental organizations in investment treaty arbitration?’ (2018) International Institute for Sustainable Development <www.iisd.org/articles/policy-analysis/influential-amici-philip-morris-v-uruguay-new-role-intergovernmental> accessed 6 May 2022.

\(^{112}\) ibid; Alexandra Nightingale, ‘The Significance Of Uruguay’s Win Over Philip Morris International’ (2016) IP Watch <www.ip-watch.org/2016/07/21/the-significance-of-uruguays-win-over-philip-morris-international/> accessed 6 May 2022.

\(^{113}\) Evidence-based policies have already proved effective for regulating diets, see Danish example (n 29).

\(^{114}\) In 2018, prior to *Plain Packaging*, only 9 countries had adopted plain packaging laws. Today, 21 countries have adopted such rules. Canadian Cancer Society, ‘Cigarette Package Health Warnings: International Status Report’ (2021) <https://cancer.ca/en/about-us/media-releases/2021/international-warnings-report-2021> accessed 6 May 2022.
legitimacy around such measures and shows the horizontal effect of domestic laws on other juris-
dictions. The acceptance of States’ right to regulate in this case and in Philip Morris may extend to future syndemic-based rules, but the WHO, human rights bodies, as well as the FAO and the UNFCCC must provide the guidance and support needed to inspire States to take such risks.\textsuperscript{115}

More generally, this shows that human rights and health law can act as a mutually reinforcing framework – as stated, it was thanks to the FCTC that human rights were even mentioned in Philip Morris. Conversely, the FCTC can use human rights ‘as a powerful engine to advance the tobacco control agenda’,\textsuperscript{116} and ‘protect public health interests from the commercial and other vested interests of the tobacco industry’, as article 5.3 FCTC urges.\textsuperscript{117} Accordingly,

human rights bodies are using ratification and implementation of the FCTC as an indicator of compliance [with the right to health] as shown for example by General Comment 15 by the Committee on the Right of the Child […] and by the inclusion of FCTC implementation in concluding observations on periodic reports by states parties.\textsuperscript{118}

This strongly indicates that global health and human rights mechanisms should collaborate to strengthen the implementation and enforcement of syndemic measures. The acceptance of the WHO’s brief in Philip Morris demonstrates the dynamism of the international legal system and that IOs should interact with each other to ensure its coherence. Uniting the regimes and actors relevant to the syndemic will reinforce the consistency and therefore strength of any measures adopted to respond to it, as the risk of costly arbitration procedures is omnipresent. Explicit norms are required to acknowledge and manage the conflicts of interest between these regimes and ensure that syndemic concerns are not reliant on a favourable interpretation by the judge.\textsuperscript{119} The tobacco example is, so far, the most successful treaty in regulating a commercial health-harming product, with ‘nearly 22 million future premature smoking-attributable deaths’ averted by virtue of the implementation of key FCTC demand-reduction measures between 2007 and 2014.\textsuperscript{120} The WHO can reproduce this approach to help States realise healthy and sustainable food security for all.

7. ADOPTING AN FCTC-LIKE APPROACH TO DIETS: THE ROLE OF THE WHO

7.1. BROADENING RESPONSIBILITY FOR HEALTH

‘Behavioural risk factor[s]’, such as smoking and diets, are traditionally associated with individual responsibility.\textsuperscript{121} The FCTC, however, removed tobacco from the purview of personal choice and

\textsuperscript{115} Garde and Zrilić (n 109) 663.
\textsuperscript{116} Secretariat of the WHO FCTC, ‘The human rights dimension of tobacco control: a tool to advance the WHO FCTC implementation’ (publisher year) <https://tinyurl.com/4rms3z3> accessed 16 May 2021.
\textsuperscript{117} ibid.
\textsuperscript{118} Gian Luca Burci, ‘WHO FCTC – Introductory Note’ (Geneva, 21 May 2003) <https://tinyurl.com/knaemp39> accessed 6 May 2022.
\textsuperscript{119} Garde and Zrilić (n 109) 661.
\textsuperscript{120} David T Levy and others, ‘Seven years of progress in tobacco control: an evaluation of the effect of nations meeting the highest level MPOWER measures between 2007 and 2014’ (2018) 27 Tobacco Control Control 50, 50–7.
\textsuperscript{121} Brigit Toebes and others, ‘Curbing the lifestyle disease pandemic: making progress on an interdisciplinary research agenda for law and policy interventions’ (2017) 17 BMC International Health and Human Rights 1, 3.
treated it ‘exceptionally’, because it is damaging to health.\textsuperscript{122} To this end, Article 5.3 FCTC ‘formally exclude[s] [the tobacco industry] from participation in public health policymaking.’\textsuperscript{123} In contrast, industry reactions to dietary regulation frame unhealthy diets as ‘individual or lifestyle choices’.\textsuperscript{124} In most States, the approach to curbing the rise in nutrition-related NCDs through dietary regulation has been to provide individuals with nutritional information, ‘empowering’ them to make sensible and healthy decisions when buying and consuming food.\textsuperscript{125} Accordingly, policy interventions aimed at the nutritional environment that reduce or prohibit access to certain unhealthy food products are minimal, despite this being required under international human rights law and one of the more effective ways of regulating diets.\textsuperscript{126}

Attaching responsibility to the individual for making healthy dietary choices is problematic. Firstly, behavioural studies show that consumer empowerment methods are largely ineffective,\textsuperscript{127} partly because removing nutrition from the realm of State or industry responsibility and placing it entirely in the hands of the individual\textsuperscript{128} disregards the social determinants affecting individual choice of food product. Accessibility and affordability fall outside the realm of personal control. Hence, this is also inconsistent with States’ human rights obligations, which they fail to meet by not bringing healthy, sustainable food choices within everyone’s reach.\textsuperscript{129} The WHO should more assertively shift responsibility away from the individual and advocate for a broader notion of responsibility for dietary health.\textsuperscript{130} One way to undermine the ‘individual responsibility’ approach and the perception of industry’s legitimate involvement in the policy discourse on NCD-prevention is to demonstrate the similarity between tobacco and certain foods. The example of ‘hyperpalatable’, or high fat, sugar, or salt foods, which ‘can stimulate neural circuits similar to those that are stimulated in cases of drug addiction’,\textsuperscript{131} most clearly supports this logic. It is thought that nutrition-related illnesses may be exacerbated by the neurological effects produced by high fat, sugar, or salt foods.\textsuperscript{132} Though the ‘addictiveness’ of foods cannot fully explain the rise in nutrition-related NCDs, this at least shows that industry is not exempt from responsibility, as its influence effectively limits individual control over food choices.

\textsuperscript{122} Burci (n 32) 5.
\textsuperscript{123} Kathrin Lauber and others, ‘Non-communicable disease governance in the era of the sustainable development goals: a qualitative analysis of food industry framing in WHO consultations’ (2020) 16 Global Health 1, 2.
\textsuperscript{124} ibid 9.
\textsuperscript{125} Marine Friant-Perrot and Nikhil Gokani, ‘Human rights, childhood obesity and health inequalities’ in Amandine Garde, Joshua Curtis and Olivier de Schutter (eds), Ending Childhood Obesity: A Challenge at the Crossroads of International Economic and Human Rights Law (Edward Elgar Publishing 2020) 103.
\textsuperscript{126} ibid. See section ‘the state duty to protect’, which details States’ due diligence obligations.
\textsuperscript{127} For more detail on the limits of informational labelling on food products, see Garde (n 25) 402. They include: ‘information overload, which may in turn lead to failures on the part of consumers 1) to pay attention to the most relevant information, 2) to process this information and 3) to act upon it.’
\textsuperscript{128} Friant-Perrot and Gokani (n 125) 103.
\textsuperscript{129} Removing diets from the realm of individual responsibility does not imply imposing certain food choices on individuals, but rather providing the option to choose healthy/sustainable foods.
\textsuperscript{130} The WHO already recognises this, to an extent, but it remains less assertive than with tobacco, eg WHO, ‘Set of Recommendations on the marketing of foods and non-alcoholic beverages to children’ (WHO 2012)
\textsuperscript{131} Tijdde Tempels and others, ‘Big Food’s Ambivalence: Seeking Profit and Responsibility for Health’ (2017) 107(3) American Journal of Public Health 402, 403.
\textsuperscript{132} Ashley N Gearhardt and others, ‘Can Food be Addictive? Public Health and Policy Implications’ (2011) 106(7) Addiction 1208, 1208.
Secondly, the ‘individual responsibility’ approach legitimizes Big Food participation in WHO consultations, through which it obstructs the adoption of nutritional policies. The WHO’s stance on the food industry’s role is ambiguous,\(^{133}\) and it fails to establish which associations should be made with it.\(^{134}\) On the one hand, it includes Big Food in negotiations: the Global Strategy on Diet ‘explicitly encourage[s] governments to consult stakeholders on policy, including the private sector and the media, […] and to establish mechanisms to promote their participation in activities related to diet, physical activity and health.’\(^{135}\) The WHO’s starting position is therefore that Big Food can positively assist in nutrition-related disease control.\(^{136}\) Food industry actors exacerbate this in WHO consultations by presenting themselves as ‘part of the solution’, stressing the importance of public-private engagement in the NCD discourse.\(^{137}\) The WHO’s active involvement of industry in NCD-prevention negotiations may even make matters worse – attempting to unite conflicting interests could stifle any meaningful reform.\(^{138}\) For instance, the WHO encourages States to follow the Codex Alimentarius Commission labelling standards on the one hand while also advising that they exceed them.\(^{139}\) States often challenge each other for doing the latter,\(^{140}\) which demonstrates their unease about the potentially trade-restrictive nature of health claims on foods and uncertainty regarding the legality of such measures. Clear WHO guidance on how to exceed these guidelines without being challenged by the trade industry would quell these concerns – arguably, the WHO is aware of industry’s heavy involvement in Codex discussions and their resulting weakened nature; hence its encouragement to go beyond them. However, it has so far failed to be explicit in this regard.

### 7.2. Disempowering Big Food

Conversely, the FCTC’s success can be explained by the WHO setting clear limits on industry’s interference in health negotiations. It materialised through the engagement of multiple stakeholders in tobacco control and careful consideration of the ‘conflicts’ between health, trade and investment law. The giant tobacco industry with unbridled power over the consumer seemed to leave States with little regulatory sway – yet the Convention was a success, portraying tobacco as ‘a health rather than trade or agricultural topic’, and was an exercise of the WHO’s ‘epistemic authority’ through its strict stance on tobacco.\(^{141}\) It urges States, ‘in setting and implementing their public health policies with respect to tobacco control [to] act to protect these policies from commercial and other vested interests of the tobacco industry in accordance with national law’.\(^{142}\)

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133. Amandine Garde, Joshua Curtis and Olivier de Schutter, ‘Ending Childhood Obesity: Introducing the Issues and the Legal Challenge’ in Amandine Garde, Joshua Curtis and Olivier de Schutter (eds), Ending Childhood Obesity: A Challenge at the Crossroads of International Economic and Human Rights Law (Edward Elgar Publishing 2020) 16.
134. Garde (n 25) 408.
135. WHO, ‘Global strategy on diet, physical activity and health’ (2004).
136. Garde (n 133) 17.
137. Garde (n 25) 440.
138. Garde (n 133) 16.
139. Katharina Ó Cathaoir, Mette Hartlev and Céline Brassart Olsen, ‘Global health law and obesity: towards a complementary approach of public health and human rights law’ in Burci and Toebes (n 25) 456.
140. The US was challenged by the Netherlands after adopting mandatory nutrition labelling in 1990 exceeding Codex Standards, based on an apparent contravention of Article 2.2 of the General Agreement on Tariffs and Trade (GATT) agreement. Action was never taken against the US. See Hawkes (n 84) 65.
141. Burci (n 32) 5.
142. FCTC (n 26), Article 5.3.
Tobacco is thus clearly portrayed as an illegitimate participant in the debate because of its vested interests in promoting a health-damaging product. In discussions leading up to the FCTC, the damaging effect of tobacco trade on health outcomes was explicitly addressed. Moreover, tobacco was ‘de-normalised’ as a major NCD risk factor, and treated as a fundamentally toxic product, thanks to scientific evidence proving that there is no safe level of exposure to tobacco. The fact that food does not suffer from the same stigma as tobacco posits the food industry as a more acceptable participant in the dialogue on NCD prevention, which partly explains the WHO’s ambivalence in this regard. Big Food, clearly, cannot be discredited to the same extent as Big Tobacco, simply because not all food products are ‘toxic’. However, considering the damaging health effects of industry’s aggressive promotion of unhealthy foods, the ineffectiveness of voluntary nutritional guidelines premised on ‘consumer empowerment’, and the addictive nature of certain food products, food industry responsibility in the NCD-crisis cannot be ignored. Moreover, it is responsible for around one quarter of greenhouse gas emissions.

The WHO’s persistent ambivalence on how to address Big Food has allowed the ‘development of industry voluntary commitments […] instead of legislation’, emphasising that it has a moral, not legal, responsibility to respect human rights. Though companies cannot be held legally accountable under international human rights law, the FCTC proves the WHO’s power to issue norms addressing the impact of private actors on health. Irrespective of their binding or non-binding nature, such norms will only be effective if they acknowledge and address the conflicts of interest arising between these regimes. It is crucial to limit Big Food’s involvement in...
health negotiations in order to prevent the industry from diluting public health measures aimed at responding to the syndemic. Recognising that individual choice of food product is largely determined by external factors, including the effectiveness of government policies in regulating industry actors, will stimulate the needed shift towards enabling food environments which ensure that healthy, sustainable foods are the default option.

Global health promotion, part of the WHO’s mandate, is defined as ‘the process of enabling people to increase control over, and to improve, their health’. Helping States to create food environments which encourage healthy diets will actually increase individual control over food choices, because it will enable them to make healthy and sustainable food choices free from the external influence of the food industry. The WHO therefore has the duty and the power to issue authoritative guidance on industry engagement in this field.

7.3. Reforming Diets and Food Systems: An Integrated Approach

Effectively responding to the syndemic calls for an integrated approach, combining the strengths of the different actors involved while adopting an FCTC-like stance towards the food industry. Overall, rights-based approaches can strengthen national endeavours to respond to the global syndemic by highlighting States’ obligations to respect, protect, and fulfil individual rights to healthy and sustainable food security and to regulate the ‘commercial’ determinants of diets by addressing the food industry. It is at this stage that international human rights law needs other regimes to support the required regulatory action.

First, the WHO should explicitly recommend excluding Big Food from health negotiations. As stated, ‘to foster [concerted government efforts to regulate company behaviour], part of the role of the private sector is, simply put, to stay out’. Even the 2021 UN Food Systems Summit included industry, sidelining human rights and allowing it to commit to voluntary private sector pledges, thereby distracting from any meaningful systemic change. As with tobacco, the WHO must urgently and explicitly underscore the ‘fundamental and irreconcilable conflict between the [food] industry’s interests and public health policy interests’.

Second, the WHO should offer stricter regulatory guidance which will translate into effective national policies. This should go beyond ‘consumer empowerment’ methods such as providing nutritional information and focus on policies that make individuals’ nutritional environment healthier and more sustainable. These include food composition, labelling, pricing, and promotion. Pricing policies can be very effective; however, such measures are likely to be met with

153. WHO, The Ottawa Charter for Health Promotion (Geneva 1986) introduction.
154. Kent Buse and others, ‘Time to clarify State obligations and accountability on NCDs with human rights instruments’ (2019) 4 BMJ Global Health 1.
155. Nora Mardirossian and Kimathi Muiruri, ‘At UN Food Systems Summit, Did Business Show It Is Serious About Addressing the Crises Facing Global Food Systems?’ (State of the Planet 2021) <https://news.climate.columbia.edu/2021/09/30/at-un-food-systems-summit-did-business-show-it-is-serious-about-addressing-the-crises-facing-global-food-systems/> accessed 6 May 2022.
156. FCTC, ‘The Guidelines for Implementation of Article 5.3 of the WHO Framework Convention on Tobacco Control’ (Conference of the Parties to the FCTC, third session, 17–22 November 2008) decision FCTC/COP3(7) principle 1 (own adaptation).
157. EPHA (n 69).
158. See The Lancet, ‘The Lancet Taskforce on NCDs and economics’ (4 April 2018) <www.thelancet.com/series/Taskforce-NCDs-and-economics> accessed 14 May 2022.
strong industry interference in the form of lobbying at the negotiation stage or legislative challenges after implementation. Step one is therefore crucial and step two should be followed by advice on managing conflicts of interest. The WHO’s 2015 guidance on pricing policies does not comprehensively address industry challenges.\textsuperscript{159} It merely states that ‘price policies for food are susceptible to being widely opposed by [...] industry, further limiting their uptake and [...] strength’, and mentions whether the ‘industry sentiment’ to each policy is positive or negative. The WHO tackled conflicts of interest in the 2016 Framework of Engagement with Non-State Actors, stating that ‘WHO does not engage with the tobacco industry and the arms industry’. However, fast food industries were not added to the list due to disagreement between Member States,\textsuperscript{160} and for the same reason, the Framework does not go so far as stating that industry must be prevented from interfering in legislative processes.

The final step is exploiting the synergy between health and human rights. The CESCR can refer to WHO documents when assessing States’ compliance with the syndemic rights in its concluding observations, as it has started to do with the FCTC.\textsuperscript{161} Exploiting the congruence between these mechanisms will strengthen the syndemic normative framework and foster accountability under the syndemic rights, as well as provide evidence-based justifications for policies that interfere with industry. This evidence – that concerted global action in the field of sustainability and diets is needed – is building up: there is broad consensus that we are reaching a tipping point regarding malnutrition, food security, and climate change. The WHO should now also reinforce the consensus that Big Food is harming the environment and human health. Human rights therefore ‘impose [the] minimum standards’\textsuperscript{162} and legal obligations to be met to respond to the syndemic, and the health regime collates evidence that justifies proscribing industry interference in health negotiations. Together, these rights-based, normative, and empirical standards have more potential to be adopted at national-level, stand up to industry challenges, and thus to be implemented effectively. The upholding of syndemic policies in national and international courts, both in individual cases and against companies, can lead to the improvement of public health policy overall, enabling States to create environments favourable to the consumption of healthy, sustainable foods.

8. CONCLUDING REMARKS

From the viewpoint of nutritional and environmental health, the food system is the main driver of one of the most significant human and planetary challenges of our time. The global syndemic will only be effectively resolved by a comprehensive overhaul of our currently ‘broken’\textsuperscript{163} systems of producing, marketing, and consuming food. Considering the gravity of the situation, the dearth of

\textsuperscript{159} WHO Europe, ‘Using price policies to promote healthier diets’ (WHO 2015).
\textsuperscript{160} K Seitz, ‘FENSA – a fence against undue corporate influence?’ (2016 Global Policy Forum briefing paper); WHO ‘Framework of engagement with non-State actors’ (2016) WHA 69.10; Kent Buse & Sarah J Hawkes, ‘Sitting on the FENSA: WHO engagement with industry’ (2016) 388 The Lancet 446, 446–447; see also WHO, ‘Addressing and managing conflicts of interest in the planning and delivery of nutrition programmes at country level: report of a technical consultation convened in Geneva, Switzerland on 8–9 October 2015’ (2016) <https://apps.who.int/iris/handle/10665/206554> accessed date.
\textsuperscript{161} Concerned by the increase in obesity in Argentina, the CESCR recommended increasing the tax on sugary beverages. CESCR, ‘Concluding observations on the fourth periodic report of Argentina’ (2018) E/C.12/ARG/CO/4.
\textsuperscript{162} Sofia Gruskin and others, ‘Noncommunicable Diseases and Human Rights: A Promising Synergy’ (2014) 104 American Journal of Public Health 773, 773.
\textsuperscript{163} Graziano da Silva (n 1).
appropriate syndemic response measures is cause for concern. The international community has proved what it can achieve when it harmonises its approaches to respond to global health threats, such as tobacco use. Conversely, the outbreak of Covid-19 has highlighted how vulnerable we are to crisis. History evinces that the most powerless and marginalised groups consistently suffer the most from global disasters, which further increases socio-economic inequality, exacerbates the root causes of ill-health, and perpetuates the transmission of disadvantage from generation to generation. The syndemic response must take these massive inequalities into account. A human rights-based approach that aims to mitigate these inequalities and pursues the protection of human dignity as its main objective is the most humane reaction to this emergency.

This article has established the value of international human rights law and States’ commitments to respect, protect, and fulfil the rights to food, health, and a healthy environment in responding to the syndemic. It proposed a rights-based, regime interaction approach to regulate the food industry more effectively. The WHO can model its approach to diets on the FCTC to realise healthy and sustainable food security for all by restricting Big Food’s ability to promote unhealthy and unsustainable products. Regime interaction between health and human rights that addresses the private industry without including it in negotiations was effective for tobacco control, and a similar process can be instigated for diets. This is key to creating an effective ‘syndemic response system’ which places human health above the profit-driven motives of the food industry.

It must be acknowledged that civil society action in WHO Member States was key to garnering support for the tobacco treaty, though a similar process has not yet convinced States in the World Health Assembly (WHA) to support an FCTC-like approach to diets. Therefore, though this analysis focused on the WHO’s role as an agency that can provide a top-level impetus for change and have a ‘trickle-down effect’ in all levels of society, other actors must also be involved. Collective action from civil society is indispensable for urging government, business, and international actors to take powerful, result-oriented measures, as the Treatment Action Campaign did with HIV/AIDS. Governments in the WHA must support the FCTC-like approach to diets, implement policies to curb the syndemic’s progress, and monitor their effectiveness. International bodies such as the FAO and the UNFCCC Secretariat can guide States in their syndemic strategies, and domestic action is key for their actual implementation and enforcement. States may also draw inspiration from other States’ successes. Human rights bodies should develop specific guidelines on the food industry’s ‘corporate responsibility to protect’. Big Food is also capable of adapting its business model to promote healthier and more sustainable lifestyles. Health and human rights promotion strategies through the State or the WHO will enable consumers to choose healthy and sustainable diets once these have been made available to them, and

164. Human rights scrutiny by civil society is a powerful tool to hold industry accountable, through informational strategies such as naming and shaming. The EU Directive on public access to environmental information obliges Member States to disseminate information relating to their environmental activities, see Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC; Judith van Erp, ‘Naming and Shaming of Corporate Offenders’ in Gerben Bruinsma, David Weisburd (eds), Encyclopedia of Criminology and Criminal Justice (Springer Science and Business Media 2014).

165. This has been done by Paul Hunt (former UN Special Rapporteur on the right to health) in relation to pharmaceutical companies. UNGA ‘The Right of Everyone to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health: Report of the Special Rapporteur, Paul Hunt. U.N. General Assembly, 63rd Session, Agenda Item 67(b)” (11 August 2008) UN Doc A/63/263.
thus to take an active role in curbing the syndemic. Finally, farmers can adopt practices that have positive or neutral environmental impacts and preserve biodiversity. Regional treaties are not within the scope of this article but should not be overlooked. The syndemic can therefore be addressed at all levels of society and across many different sectors. Political willingness to shift the power balance away from private industries will greatly determine the effectiveness of the syndemic response. Future studies should focus on how to achieve this while adhering to human rights standards in the reform of global food systems. This is the key challenge of our times, and our best chance of reversing the biggest health and planetary threat of the twenty-first century.

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