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The ultra-processed food industry in Africa

Petronell Kruger, Rachel Wynberg, Mikateko Mafuyeka, Amos Laar, Mélissa Mialon, Lori Lake, Chantell Witten, Nicholas Nisbett, Phillip Baker & Karen Hofman

The recent involvement of Nestlé in the Africa Food Prize reinforces the presence of the ultra-processed food industry in the continent and invites us to reflect on the implications this may have for Africa's sustainable food systems agenda.

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The partnership between Nestlé and the Alliance for a Green Revolution (AGRA) on the Africa Food Prize, announced in November last year, is framed as intending to "help accelerate the transformation of food systems in Africa, as a way of strengthening the continent's food security and building greater climate change resilience". AGRA's specific goals to achieve this include improving access to nutrition, improving food security and eliminating hunger, facilitating economic growth – with a focus on improving smaller-scale agricultural endeavours by local farmers, and creating sustainable food value chains. But what exactly are the implications of partnering with the world's largest ultra-processed food (UPF) manufacturer to Africa's sustainable food systems agenda?

"Ultra-processed foods are formulations of ingredients, mostly of exclusive industrial use, that result from a series of industrial processes"[1]. These foods are designed using ingredients and techniques intended to maximize profitability, including long shelf life, low-cost ingredients and branded packaging, and cosmetic additives such as flavourings, colourings and sweeteners that enhance the sensory properties of products. Substantial evidence exists of the harms that UPFs pose to human health, the environment, and economic development, as well as the threats posed by the commercial determinants of ill health. Ultra-processed foods' ready availability, convenience and quasi-addictiveness, combined with aggressive marketing practices used in their promotion, favour the displacement of non-UPFs, including cultural foods and cuisines, in human diets[1].

Ultra-processed food companies are those that manufacture and market such foods, with the ultimate objective of generating profits and returns for shareholders, while the UPF industry is the wider commercial ecosystem that involves actors benefitting from and with a shared interest in the proliferation of UPFs[2]. As the world's attention to the sustainability of food systems grows, these companies and the wider industry are clearly positioning themselves as 'part of the solution', especially as they continue to expand in low- and middle-income countries[3]. In this context, a few questions arise: how does the UFP industry impact the sustainability of food systems? Do partnerships between organizations such as AGRA and UPF companies pose a risk to the integrity of food systems governance? And how should policymakers and other food systems stakeholders throughout Africa engage with this industry, if at all?

Food systems sustainability

Partnerships between unhealthy food producers and not-for-profit or governmental organizations can confer legitimacy and credibility to the former and improve public perception of their products[4]. In that sense, AGRA's engagement with Nestlé risks strengthening the company's ability to market unhealthy foods – especially to children and adolescents in Africa – while simultaneously displacing fresh and minimally processed foods and meals from their diets.

Such concerns are bolstered by AGRA's poor credibility to reduce hunger and to help smallholders achieve better livelihoods. Despite claiming to be Africa-led, AGRA receives its funding from philanthropic foundations, intergovernmental organizations, and corporations, with decision-making located within Global North institutions[5]. AGRA has also been under the spotlight due to the controversial appointment of its president, who served as the United Nations Secretary-General's Special Envoy to the 2021 United Nations Food Systems Summit. Several organizations criticized this appointment in particular – and AGRA in general – for potentially bringing strong corporate interests into the United Nations' decision-making processes and therefore having a central role in shaping the global transformation goals[6].

Nestlé has a long-standing track record of aggressive marketing of commercial milk formulas in misalignment with the International Code of Marketing of Breast-Milk Substitutes and numerous subsequent resolutions signed by African Ministers and others at the World Health Assembly[7]. Nestlé owns the world's most commercially valuable food and drinks portfolio, and yet a leaked internal document disclosed that more than 60% of the company's product portfolio was deemed 'unhealthy' (as determined by a favourable nutrient-profiling model). Growing evidence shows a dose–response relationship between dietary exposure to UPFs and markers of poor diet quality, and the risk of adverse health outcomes, including all-cause mortality, overweight and obesity, cardiovascular disease and type 2 diabetes[8].

Studies have also revealed substantial environmental harm linked to UPF supply chains. In high-income countries (typically with high UPF consumption), UPFs accounted for 36–45% of total diet-related biodiversity loss, up to one-third of total diet-related greenhouse gas emissions, land use and food waste, and up to one-quarter of total diet-related water use[9]. These harms are especially notable because UPFs are superfluous to human need and are unsuitable for a healthy diet, and therefore generate unnecessary waste and use scarce environmental resources in their production. Nestlé, for example, is reportedly the world's third largest plastic polluter, producing 920,000 metric tons of plastic annually between 2018 and 2022 (ref. 10).

The UPF industry has also been shown to contribute to a 'maldistribution' of wealth and income in society by extracting the wealth generated by the promotion of UPFs in low- and middle-income countries while externalizing health, environmental and social harms[11,12]. The manufacturing of UPFs is concentrated in the hands of a small group of transnational companies and affiliated industries with immense market power, headquartered mostly in the United States and Western Europe[3]. These are the same colonial countries that have extracted wealth from Africa for centuries, including slaves to work the sugar plantations of the Americas[13]. The liberalization of trade and investment has enabled these companies to enter local markets, to establish production facilities and distribution networks, and to capture market share by offering cheap food products and using promotional tools to shape consumer preferences[11].

African companies and industries are harmed substantially by increased investments and imports from transnational companies. For example, the local chicken wing economy has been almost wholly substituted by imports in the African region[13]. European and American subsidies to farmers have also led to cheaper UPFs, which are exported to developing countries, displacing local competitors that often provide less processed and healthier products[14]. Concerns have been raised about how transnational companies rely on labourers who are subjected to low wages (or, in extreme cases, no wages) and poor working conditions[15], and the resulting impact on wealth distribution[16]. Nestlé itself has been accused of having child labour and slavery in its cocoa supply chain.

Food systems governance

The UPF industry is part of a wider ecosystem of commercial actors, many of which are politically influential — including producers of commodity input crops, ingredient suppliers, marketing agencies and retailers, as well as national and transnational lobby groups and trade associations[2]. The Nestlé–AGRA partnership comes at a time of growing market concentration and corporate power in food systems; multi-stakeholder initiatives and public–private partnerships emerge as forms of food systems governance[17].

Across the globe, examples can be found of the UPF industry having acted in a way that undermines food systems governance and, ultimately, the establishment of strong institutions for achieving sustainable food systems and public health[17]. In fact, companies and their front groups undertake various corporate political activities with the intention of ensuring continued market growth and countering potential regulatory threats. This includes actions to influence science and foster favourable knowledge environments, build relationships with policymakers through lobbying, or promote an image of corporate responsibility while pushing for voluntary self-regulation as a substitute for legally binding regulation by governments[18]. While Nestlé claims to make positive contributions to sustainable development, the company has actively engaged in lobbying against food policy and regulation intended to improve public health in many countries and internationally[19]; it has also been at the centre of notable conflicts of interest among health professionals working in child nutrition, as evidenced by its actions in South Africa[20].

The way forward

Policymakers and food systems stakeholders throughout Africa face the paradoxical decision of accepting the corporate social responsibility arguments of the food industry and the purported jobs and investments they bring to the region, against extraordinary harms to human health, the environment and sustainable economic development. Due to the high potential of perpetuating long-standing relationships of colonial wealth extraction and harm, it is time to reconsider how relationships between public and private organizations and interests are managed, evaluated and regulated. Ultra-processed food manufacturers should be subjected to the same conflict of interest principles applied to other harmful industries such as tobacco, alcohol and arms and ammunition. This includes having strict requirements for whether, when and how policymakers, international organizations, philanthropists, scientists, and other key stakeholders in food systems engage with UPF companies.

We call on policymakers to protect the integrity of food systems governance and policymaking institutions from corporate influence. Companies' marketing activities dressed up as corporate social responsibility should be regulated as commercial activities and should no longer be granted local tax benefits or procurement advantages, as is often the case. As researchers, we must be critical of corporate activities and be attentive to corporate interests that are harmful to health and the environment and that prevent attainment of the sustainable development goals.

Petronell Kruger[1] ✉, Rachel Wynberg[2], Mikateko Mafuyeka[1] ✉, Amos Laar[3], Mélissa Mialon[4], Lori Lake[5], Chantell Witten[6], Nicholas Nisbett[7], Phillip Baker[8] & Karen Hofman[1]

[1]South African Medical Research Council/Wits Centre for Health Economics and Decision Science, School of Public Health, University of Witwatersrand, Johannesburg, South Africa. [2]Bio-economy Research Chair, Department of Environmental and Geographical Science, University of Cape Town, Cape Town, South Africa. [3]Department of Population, Family, and Reproductive Health, School of Public Health, University of Ghana, Accra, Ghana. [4]Trinity Business School, Trinity College Dublin, Dublin, Ireland. [5]Children's Institute, Department of Paediatrics and Child Health, University of Cape Town, Cape Town, South Africa. [6]DSI-NRF Centre of Excellence for Food Security, University of the Western Cape, Cape Town, South Africa. [7]Institute of Development Studies, University of Sussex, Brighton, UK. [8]Institute for Physical Activity and Nutrition, Deakin University, Geelong, Victoria, Australia.

✉e-mail: petronell.kruger@wits.ac.za; Mikateko.mafuyeka@wits.ac.za

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References

1. Monteiro, C. A. et al. *Public Health Nutr.* **22**, 936–941 (2019).
2. Lauber, K., Rutter, H. & Gilmore, A. B. *BMJ Glob. Health* **6**, e005216 (2021).
3. Baker, P. et al. *Obes. Rev.* **21**, e13126 (2020).
4. Parker, L. A., Zaragoza, G. A. & Hernández-Aguado, I. *BMC Public Health* **19**, 1438 (2019).
5. Mkindi, A. R. et al. *False Promises: The Alliance for a Green Revolution in Africa (AGRA)* (Rosa-Luxemburg-Stiftung, BIBA, Bread for the World, FIAN, 2020); https://go.nature.com/440ZOVV
6. Day, H., Canfield, M. & Wallaia, A. *The Man Behind the Curtain: The Gates Foundation's Influence on the UN Food Systems Summit* (Community Alliance for Global Justice, 2020); https://go.nature.com/3Ju7bNB
7. *Breast-Milk Substitutes and Complementary Foods Marketing Index 2021 Executive Summary* (Access to Nutrition Initiative, 2021); https://go.nature.com/3XOFHYQ
8. Rico-Campà, A. et al. *Br. Med. J.* **365**, l1949 (2019).
9. Anastasiou, K., Baker, P., Hadjikakou, M., Hendrie, G. A. & Lawrence, M. *J. Clean. Prod.* **368**, 133155 (2022).

10. *Brand Audit Report 2018-2022* (Break Free From Plastic, 2022); https://go.nature.com/46rgB68
11. Wood, B., McCoy, D., Baker, P., Williams, O. & Sacks, G. *Crit. Public Health* **33**, 135–147 (2021).
12. Wood, B. et al. *Global Health* **17**, 138 (2021).
13. Mintz, S. W. *Sweetness and Power: The Place of Sugar in Modern History* (Penguin, 1986).
14. Fardet, A. & Rock, E. *Sustainability* **12**, 6280 (2020).
15. Crane, A., LeBaron, G., Allain, J. & Behbahani, L. *Regul. Gov.* **13**, 86–106 (2019).
16. *Oxfam Annual Report* (Oxfam, 2014); https://go.nature.com/3JwL74V
17. Clapp, J. & Scrinis, G. *Globalizations* **14**, 578–595 (2017).
18. Mialon, M., Swinburn, B. & Sacks, G. *Obes. Rev.* **16**, 519–530 (2015).
19. Baker, P. et al. *Global. Health* **17**, 58 (2021).
20. Lake, L. et al. *S. Afr. Med. J.* **109**, 902–906 (2019).

Author contributions

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Competing interests

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