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Being realistic about the contribution of private businesses to public nutrition objectives

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Abstract: *This article concerns the role of the state and the private sector in addressing Sustainable Development Goal 2, which is to end hunger, achieve food security and improve nutrition, and promote sustainable agriculture. We critique the 'food environment' focusing on the strategies and policies of the public and private sectors which shape agri-food production and consumption. We use evidence from studies in South Asia to suggest more realism about the contribution of major businesses to public nutrition objectives. We conclude that business policies are dynamic, and for most firms and in many markets, there are genuine challenges in reaching the 'bottom of the pyramid' of consumers with nutritious foods. For policy-makers there should be no assumption that public and private sector objectives are aligned. Policy recommendations include stronger direct intervention such as through taxation, subsidies, regulatory incentives, and controls on advertising and distribution with appropriate monitoring and sanction mechanisms, and indirect interventions to facilitate the pro-nutrition operations of small and medium size enterprises.*

Keywords: agri-food business, nutrition, policy, value chain, interventions

THIS ARTICLE CONCERNS THE ROLE of the state and the private sector in addressing the Sustainable Development 'Zero Hunger' Goal 2, which is to: 1) end hunger, 2) achieve food security and improve nutrition, and 3) promote sustainable agriculture. To do this we: 1) explore the 'food environment' (Turner et al., 2017), focusing on the strategies and policies of the public and private sectors which shape agri-food production and consumption; 2) summarize evidence from studies in South Asia; and 3) suggest more realism about the contribution of business to public nutrition objectives.

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The environment of food strategies and policies

The state of global nutrition is such that the chances of meeting the Sustainable Development 'Zero Hunger' Goal 2 are increasingly remote (FAO et al., 2019). Moreover, current trends indicate that we will fail to reach the SDG target to halve the number of stunted children and also the 2025 World Health Assembly target to reduce the prevalence of low birthweight by 30 per cent. Given also the global rise in the prevalence of non-communicable diseases, there has to be a new focus on the private sector's role in producing and delivering nutritious foods, particularly to vulnerable groups of consumers such as children and young women. It is logical and urgent – and consistent with the SDGs – to look to agri-food businesses to support the pro-nutrition agenda. This is consistent with SDG 17, which is a broad goal to strengthen the means of implementation and revitalize the global multi-stakeholder partnership for sustainable development, and targeting, among other things, public, public-private, and civil society partnerships. Moreover, the strategy of the UN Global Compact is to drive business awareness and action towards fulfilling the SDGs (UN Global Compact, 2018).

One such partnership is the Global Alliance for Improved Nutrition (GAIN), working with stakeholders from every major sector in development. The related movement for Scaling Up Nutrition (SUN) has led to stated commitments from many national governments, international organizations, and donors. The SUN Business Network aims to mobilize business for nutrition with activities such as the 24 May 2018 SUN Nutrition Hub Multi Stakeholder Collaboration, entitled: *How Can We Strengthen The Enabling Environment For Business To Take Action In Improving Nutrition*? It focused on key challenges and opportunities to accelerate the private sector contribution to healthy diets.

Global advocacy and accountability initiatives have also been promoted, such as the Access to Nutrition Index (ATNI) which scores the 22 biggest food and beverage companies – headed by Nestlé, Unilever, and Danone – on their efforts to improve nutrition through actions on marketing and product formulation (ATNF, 2018).

Compared with the 'corporate responsibilities' oriented towards social and environmental objectives enshrined in the accepted international conventions, the agri-food and nutrition agenda lacks a specific international policy framework and interventions. Governments struggle to shape regulations and incentives for better nutrition: note, for example, the difficulties in reducing sugar and salt content in processed foods, despite the huge social cost of overconsumption such as the increasing levels of non-communicable diseases. Resolving the trade-offs between conflicting goals and sectors involves acute scientific and political judgements. Without clear goals and a framework, it is problematic to align these multiple interests. Nevertheless, the increasing strength of the critique of ultra-processed foods highlights the scale of the international challenge (Monteiro et al., 2018; Lawrence and Baker, 2019; Vandevijvere et al., 2019).

Better nutrition is not often an objective of agri-food firms. While an enterprise such as Nestlé describes itself as a 'wellness' firm, the latest ATNI report shows that firms need to 'walk the talk on global health and nutrition' (ATNF, 2018). According to the Global Panel on Agriculture and Food Systems for Nutrition, 'there are very few

successful examples where governments have harnessed the market power of private sector actors to achieve positive gains in nutrition' (Global Panel, 2018: 5).

An example of food industry 'talk' was the Golden Jubilee Conference of the Nutrition Society of India, 15–17 November 2018 in Hyderabad. The R&D Director of Nutrition PepsiCo India made a presentation on the corporate vision, 'Performance with Purpose' (PwP). PwP has been the firm's way of doing business since 2006 and is founded on PepsiCo Nutrition Criteria, 'a set of science-based nutrition guidelines that serve as a compass to assist PepsiCo's portfolio transformation'. PwP concerns 'products, planet and people' and is an agenda for 2025 designed to move the business towards more healthy food and beverages. We were told that 'We will reduce added sugars, sodium, and saturated fat so it's easier to maintain a healthy diet, while also working to improve affordability and accessibility of nutritious foods in the communities who need it most'. Product reformulation is not a trivial activity because product testing by consumers is a 'lengthy and high-cost process'; and 'changes mean disruption to supply chains'. But the urgency of improving performance is not captured by the 20-year timescale from 2006. The strategy needs less alliteration and more ambition, less 'talk' and more 'walk'.

In the political economy context of public–private engagement in the food sector, it is noteworthy that implementation of the 1981 International Code of Marketing of Breast-Milk Substitutes is still deficient:

> Countries continue to face significant challenges in ensuring effective implementation of the Code … Challenges include a lack of political will to legislate and enforce the Code, continued interference from manufacturers and distributors in governments' efforts to initiate or strengthen Code monitoring and enforcement measures, lack of sufficient data and expertise on Code-related matters, absence of coordination among responsible stakeholders, and limited national and international resources for legislation, monitoring and enforcement (WHO et al., 2016).

In an editorial on the marketing of breastmilk substitutes, 'No ifs, no buts, no follow-on milk', *The Lancet* reiterated the point that 'From tobacco, to sugar, to formula milk, the most vulnerable suffer when commercial interests collide with public health. Robust advertising regulation—covering all milk products for children up to 3 years, and banning social media promotion—is the next step to protect them' (*The Lancet*, 2016: 2064).

Global corporates such as large-scale food manufacturers, *inter alia,* are responsible for promoting (ultra-)processed products that contribute to unhealthy diets. However, they are aware of the challenges and can be engaged and monitored. Much agri-food production and distribution is conducted in small and medium-sized enterprises (SMEs). SUN and GAIN have programmes working with such SMEs. Through public–private sector partnerships governments can promote nutrition-related goals. As evidence supporting these approaches, we report on initiatives and interventions from South Asia researched under the DFID-funded programme Leveraging Agriculture for Nutrition in South Asia (LANSA: http://59.160.153.187/) that test these propositions. This account draws on work published in a Special Issue of the *IDS Bulletin* (Maestre and Poole, 2018) and is cross-referenced to the current literature.

Value chains for nutrition: evidence from South Asia

Research concepts, questions, and framework

The purpose of the LANSA value chain studies was to identify realistic expectations of the public and private sectors, respectively. We used a value chain approach to address two questions:

1. What are the existing agri-food value chain pathways that deliver nutritious foods from agriculture to nutritionally vulnerable consumers?
2. What public and private actions are needed to strengthen the impacts of these value chains on nutrition in South Asia?

Figure 1 depicts the agri-food value chain as a cycle beginning with demand particularly for micronutrient-rich foods. Demand is met by the supply of naturally nutrient-rich and fortified products, produced by the initiatives and strategies of individual firms, each operating within a given industry environment. Foods are

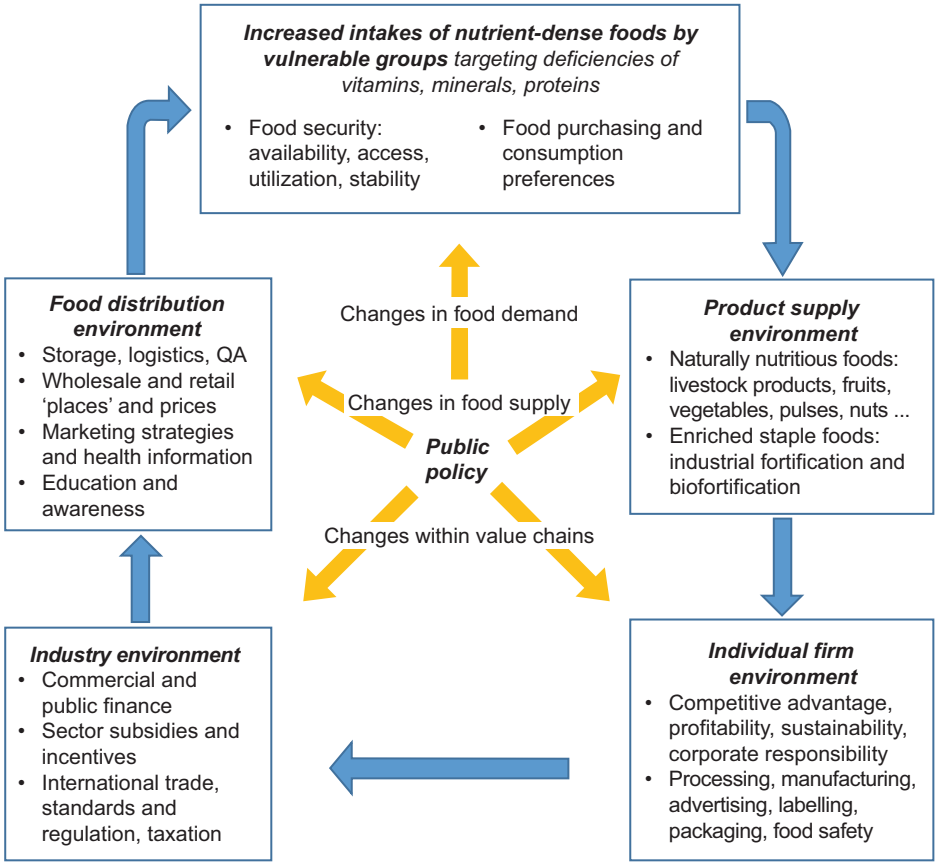

Figure 1 The agri-food cycle and policy intervention points for better nutrition
Source: adapted from Maestre et al., 2017

delivered to consumers through a 'distribution' space, shaped by factors partly internal and partly external to the firm and the industry. Public policy can intervene in various ways, directly and indirectly, at different stages of the food chain cycle.

The value chain research within the LANSA programme examined three types of value chain activity at different stages of the food cycle. The cases are mainly of large-scale food value chains and interventions.

Processing, fortification, and distribution

In India we examined the Supplementary Nutrition Programme of the Integrated Child Development Services Scheme (Bhavani and Parasar, 2018). This focused on two models of public delivery exhibiting different arrangements with private business and civil society of nutritionally balanced and micro-nutrient fortified food (Telangana and Tamil Nadu, respectively). Through state intervention, investments achieved nutritional impact at scale. The outcome was effective targeted delivery of nutrient-rich foods for mothers and for children under the age of six years. While cost and efficiency questions remained, these programmes are alternative models but typical of successful state welfare interventions.

Flour fortification is globally endorsed. In Pakistan the focus was on supplementation through industrial-scale milling. Wheat is amenable to fortification at milling with iron, zinc, folic acid, vitamins A and B12, thus addressing a number of common micronutrient deficiencies. In fact, alternative flour value chains exist in Pakistan: major grain markets are regulated, with large-scale licensed milling and distribution accounting for 40–60 per cent of flour, but such industrial programmes are liable to inefficiency and corruption. In reality, much milling is undertaken in local mills (*chakkis*) with different sourcing channels and reduced potential for fortification. Many consumers prefer *chakki* flour to the industrial flour. So, while mass food fortification is a 'no-brainer', in practice, 'how to do so' is more problematic especially where milling and distribution systems are highly atomized. The local context constrained effectiveness:

> Technocratic optimism around the reduction in anaemia through wheat flour fortification is based on a number of assumptions about consumer behaviour, producer incentives, and regulatory action that appear to be unrealistic … Fortification interventions that are not attentive to institutional constraints that perpetuate inefficiencies along the value chain are not likely to deliver on their potential (Ansari et al., 2018b: 66–7).

Like Pakistan, in Afghanistan – the newest member of SUN – milling is done in local small-scale or mobile mills. These experience the same monitoring and enforcement challenges that have already proved testing for the mandated programme in Afghanistan of salt supplementation. Commenting on the Afghan situation, GAIN noted that:

> fortification at small-mill [sic] may not be a wise decision as the feasibility of such a strategy is very low and there is a high proportion of imported wheat

> flour available on the market [that, having been milled already, is not amenable to fortification]. Alternative targeted strategies may be required for certain population sub-groups that will not be reached by the large-scale wheat flour fortification program (GAIN, 2018: 12).

A final critical comment on the wheat industry and consumption is the minimal emphasis attached to the importance of retaining fibre and other nutrients – protein, vitamins, and minerals – that are integral to wheat bran. This is accomplished through small-scale local milling but not generally through industrial milling that produces white flour and bread. Having removed the valuable micronutrients, 're-fortification' only partly redresses the loss of nutritional value – but it is an essential and low-cost strategy for which an appropriate model is feasible in most contexts (Lalani et al., 2019).

Development of novel foods

Second, we analysed private sector initiatives. In India, the firm Britannia Industries manufactures and sells baked and dairy products. In the early 2000s Britannia developed Tiger brand iron-fortified biscuits for the World Food Programme under a corporate social responsibility initiative, which was nutritionally beneficial and commercially viable: 'Eat Healthy, Awaken Your Body and Mind' (Parasar and Bhavani, 2018). The biscuit was developed together with GAIN, and a high iron fortified variant distributed in schools in Hyderabad City for supervised consumption through a private–public–non-governmental organization (NGO) partnership, and a low iron fortified variant sold through regular commercial channels. However, following a review and reformulation of its products in 2014–15, the iron-fortified biscuit line was withdrawn. The change in strategy coincided with a change of CEO, and it was difficult to discover the reasons. Two likely possibilities were increasing doubts at the highest level about firm strategy and marketing of the Tiger brand; and second, a conflict between social and commercial objectives arising from a weakened product position and brand identity.

Dairy was another sector under study. Since the 1960s, the milk substitute industry has been criticized by nutritionists, as noted above. (At the time of this research, widespread press reports indicated that Danone was under criticism from mothers for adjusting the formula of its Aptamil baby milk products which, it was alleged, had caused illness among its small consumers (Toman, 2018).) For an enriched 'infant milk substitute' from Gujarat Cooperative Milk Marketing Foundation in India, market development was constrained by advertising regulations concerning consumption by infants. The product, Amulspray has achieved high acceptability in a competitive market but it is used by adults, not infants, and primarily in tea and desserts. Both regulatory and marketing challenges have limited the product 'reach'. The research concluded: 'It is not realistic to expect businesses voluntarily to address BoP [bottom of pyramid] distribution-related challenges without some degree of public support or a favourable institutional environment' (Parasar and Bhavani, 2018: 34).

In Bangladesh, Grameen Danone Foods Ltd (GDFL) was set up in 2005 by Grameen Bank and Groupe Danone (Sardana, 2013). The novel 'social business'

platform is a potentially important industry model. The products are a fortified yoghurt, Shokti+ and Shokti Pocket, of proven efficacy. However, the experience of distribution was that, even for an enterprise with the resources of a major multinational like Groupe Danone, it has been difficult to reach poor populations. Maintaining the cool chain is challenging in Bangladesh, and the large sales volumes needed for commercial viability were unattainable. The incentives structured into the strategy of building sustainable distribution through a female commissioned 'Shokti lady' salesforce in effect targeted the not-so-poor consumers rather than the nutritionally vulnerable groups. Businesses such as GDFL can adapt to the marketing challenges, but evidently 'business initiatives will struggle to reach those that are poorest, and it is for such households that public initiatives or public-private partnerships are most critical' (Agnew and Henson, 2018).

Hybrid partnerships

Third, we examined experiences of other types of partnerships. In Pakistan, from 2005 the dairy 'White Revolution' was expected to lead to a 'river of milk' (Ansari et al., 2018a). It was an initiative sponsored by Tetra Pak Pakistan Ltd with collaboration from Nestlé Pakistan Ltd according to a model proven elsewhere by Nestlé (Goldberg and Herman, 2007). Over a few years, changes in market demand conditions and product strategy diverted the project out of the dairy sector and into non-dairy 'tea whiteners'. These are now found to account for about 55 per cent of UHT manufacturers' sales. Partly due to heavy marketing, liquid 'tea creamers' rather than milk products have become the principal source of commercial growth in the industry. For real milk, the White Revolution has stalled: the major dairy companies have not increased their local sourcing, tend to pay lower prices than the local buyers, and industry developments have led to increased imports of dried milk. This white 'counter-revolution' has resulted from changing business strategies: the major companies involved identified better business opportunities outside the dairy sector. Tetra Pak, for example, used its near-monopoly power to expand the profitable packaging of non-dairy products.

In Bangladesh, a dairy initiative was attractive because of the undue dietary dependence on rice and hence the need for nutritious foods such as milk (Ul Kabir et al., 2018). Milk supply is derived from two principal value chains: small-scale dairy production, which is largely undertaken by women feeding dairy supplies into short, informal chains; and more technified production, bulking, and processing in formal chains. Among the large businesses involved are Bangladesh Milk Producers' Cooperative Union Ltd (Milk Vita), BRAC Dairy and Food Project (Aarong), Pran Dairy Limited, Akij Dairy, and Rangpur Dairy. The research analysed milk purchasing and consumption behaviour among poor consumers. Significant differences were found in consumer market segmentation and behaviour between rural and urban areas. Again, it was evident that distribution was challenging: marketing 'reach' was limited by lack of value chain development towards the target populations of poor rural and urban consumers, leaving demand unsatisfied. Without major value chain investment in distribution by small enterprises, milk proved to be unavailable,

unaffordable, or unacceptable to poor consumers. The research concluded that nutrient-rich foods other than dairy would be needed to address the prevalent dietary deficiencies.

An Afghan dairy value chain investment undertaken in the remote province of Badakhshan demonstrated the potential for development of what was hitherto a rudimentary business sector (Poole, 2018). Because of the limited reach of the state, the intervention modality in Afghanistan is commonly through public or donor partnerships with not-for-profit national or international NGOs. In this case, an NGO Afghanaid had implemented a women's economic empowerment programme for which dairy had been chosen as a promising sector. The value chain analysis identified a willingness of small-scale, predominantly female primary producers to engage with a programme of increased technification and investment in local bulking and processing facilities. As in Bangladesh, value chain coordination from processing to retailing remained problematic – exemplifying the 'missing middle' of small-scale enterprise (Reardon, 2015). Involving women in post-farmgate agri-business presents specific challenges in Afghanistan which the government is attempting to address (GoIRA, 2016). Further investment was needed to upscale the initiative, and to address consumer demands for quality where regulatory controls are weak, and for continuity where extreme seasonality affects supplies. Multi-sectoral investments in capacity building were needed to stimulate product development and marketing strategies in order to create sustainable market advantages where there is a heavy dependence on imports (Poole et al., 2018).

Conclusions

Summarizing lessons from the case studies, we conclude the following:

- Firm profitability sits uncomfortably beside promoting consumer health. There should be no assumption that public and private sector objectives are aligned. Policy makers must accept limitations constraining public–private partnerships (Henson and Agnew, 2020), and acknowledge that market failure to deliver nutritious foods may have to be addressed through public sector interventions.
- Business policies are dynamic: senior staff and production and marketing strategies change for internal management reasons, shareholder pressure, and because of evolution in the external business and advocacy environment. Clear, stable, and supportive pro-nutrition public policy and food regulatory frameworks will help firms to maintain more stable strategies. As Haddad (2019) notes, it is governments that, together with civil society, shape the incentive and regulatory environment.
- Important elements of the external business environment which condition industry behaviour are beyond the control of firms and may be more, or less, conducive to stability and efficiency. Investments in essential supporting sectors such as infrastructure, communications, and logistics constitute a complex mix of public and private responsibilities; and security from man-made and natural

disasters that threaten food systems can pose extreme risks, the management of which is more complex still.

- While the marketing 'reach' of some major food and beverage multinationals is ubiquitous, for most firms, and in many markets, there are genuine challenges in reaching the 'bottom of the pyramid' with safe and nutritious food, challenges which are difficult to target directly through global initiatives. For business to reach remote markets, external supports are necessary.
- Public–private–NGO partnerships can be effective, but because of the potential misalignment of objectives over time, long-term formal agreements with monitoring and enforcement are necessary to ensure that such initiatives are efficient and sustainable.
- There are context-specific factors which determine the nature and success of agri-food policies for nutrition:
  - The policy environment is conditioned by the design and delivery capacity of public sector organizations and the characteristics of local socioeconomic structures.
  - Benign influence of the stakeholder environment depends on multi-sectoral engagement and the strength of advocacy and resilience of mechanisms for accountability.
  - Advertising and education should be jointly regulated, balancing public and private interests.

Among international agreements, SDG17 appears vacuous and the UN Global Compact lacks teeth on global health and nutrition. GAIN and SUN are struggling to have impact, but global movements are necessary and need governmental support. A genuine commitment to 'corporate responsibility for health and nutrition' is needed from the agri-food sector – and more quickly – in order to achieve change in the global food industry culture. Some interventions should be mandatory: pro-nutrition interventions such as industrial fortification should be taken up universally and made effective. Other potential food policies require cautious but no less determined approaches.

We need further knowledge of how to leverage the ongoing transformation of food environments by shifting incentives, managing and distributing risks and profits in the agri-food cycle, and targeting consumer behaviours. Research with the private sector is essential (Haddad, 2020). The ethics of marketing of unhealthy foods has been questioned for quite some years (Hawkes, 2007) but legislative controls have lagged. There is an increasing body of research in diverse food contexts suggesting that taxation potentially can change consumption patterns away from unhealthy sugar-sweetened beverages and energy dense ultra-processed foods (Bíró, 2015; Batis et al., 2016; Smed et al., 2016; Caro et al., 2017). However, empirical evidence is still lacking. Individual firms may have different or unpredictable responses to policy interventions, and impacts are therefore indeterminate (Veerman, 2017). Recent analysis of the sensitivity of businesses and investors to the UK's Soft Drinks Industry Levy has indicated that for industry there is little concern about the impact of legislation (Law et al., 2020). Hence, political economy analyses of food policies are necessary to identify and resolve the private constraints to pro-nutrition public interventions.

Overall, public policy must include stronger direct intervention in the large firm sector at the right points in the cycle (Figure 1) through taxation, subsidies, regulatory incentives, and controls on advertising and distribution, with appropriate monitoring and sanctions. There is a potential role here for civil society. Indirect intervention also can facilitate firm efficiency and reduce the costs to poor consumers of nutritious foods by mitigating food chain costs of contracting, of regulatory compliance, and of financial services (capital and insurance) particularly to the 'hidden middle' of small and medium-size food firms (Reardon, 2015). In particular, more knowledge is needed among researchers and policy makers to understand the operations of SMEs in South Asia and more widely.

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