

Ensuring that Food Fortification will Reach the Poor in Tanzania

Tanzania has introduced a mandatory food fortification programme to tackle the country's high rates of undernutrition. Experience from other countries shows that fortification can add vital micronutrients into commonly eaten foods at a low cost. However, getting food-processing companies to comply with the programme will be a major challenge, and this will be even more difficult in the informal markets used by poor people, who are most vulnerable to undernutrition. This policy briefing recommends that stakeholders in government and development partners need to implement specific, evidence-based approaches to cover these markets. As part of their strategy, they should also support other channels beside fortification to reach very poor and rural populations.

An alliance of actors from the private and public sectors are pursuing an ambitious food fortification programme in order to address Tanzania's high rates of micronutrient undernutrition. This programme is overseen by the National Food Fortification Alliance, a stakeholder body that includes food-processing companies, government agencies, donors and non-governmental organisations (NGOs). Legislation passed in 2011 requires all businesses producing three types of food (wheat flour, maize flour and vegetable oil) to add to these products several micronutrients key to people's health (iron, vitamin A and/or zinc). As these micronutrients are currently absent from the diet of many Tanzanians, the programme's aim is to provide them to more than ten million people.

Addressing undernutrition requires reaching the poorest and most marginalised

Reducing undernutrition requires improving access to nutrient-rich foods for people who are poor and marginalised, particularly those

who live in rural areas, as these groups suffer a vastly disproportionate burden of undernutrition (Table 1). Additionally, there is a need to address the multiple drivers of undernutrition, including infant feeding and care practices, access to health services, clean water and sanitation.

What makes mandatory fortification successful?

In the absence of policy interventions, few if any businesses can sell fortified products to poor people, as a result of several widespread constraints:

- **Lack of awareness.** Most Tanzanians are not aware of the benefits of fortified products; poor people in particular are reluctant to use scarce cash to buy them
- **Competition.** Fortified products have to compete with unfortified ones, which can be sold at a lower price
- **Distrust in the market.** Consumers distrust the claims made on packaging, especially since there are many fake products on the market.

Undernutrition in Tanzania

Tanzania has among the world's highest rates of undernutrition, with around 2.4 million children malnourished and 42 per cent of children suffering from stunting. Deficiencies in micronutrients – which are required in small amounts but crucial to children's health and development – are especially widespread. About one third of children in Tanzania are deficient in iron and vitamin A. It is estimated that vitamin A deficiency will contribute to one out of ten child deaths between 2006 and 2015, while anaemia (in part caused by a lack of iron in diets) will contribute to one in five deaths of mothers during pregnancy.

Table 1 Disparities in undernutrition indicators across social groups for children†

Indicator	Residence (%)		Wealth quintile (poorest to richest) (%)				
	Urban	Rural	1	2	3	4	5
Stunting	32	45	48	45	44	39	26
Underweight	11	17	22	18	14	13	9

Source: Based on NDHS (2010).

As a result, businesses in search of profitable opportunities do not target fortified foods towards the needs and budgets of the poor. Doing so would be commercially unviable.

By establishing mandatory fortification and ensuring that all products meet the standard for added micronutrients, governments and their partners can:

- **Bypass low awareness.** Consumers do not necessarily need to be aware of the added nutritional value. They simply receive extra nutrients through the products they have always eaten
- **Provide a level playing field.** Fortified products do not have to compete with unfortified ones, making it easier for businesses to market these products to the poor
- **Distribute widely.** By targeting products that are already widely consumed, mandatory fortification can reach large sections of the population without the high cost of establishing new distribution systems.

In order to achieve the benefits described above and to help reduce undernutrition, the mandatory fortification programme needs to:

- **Ensure the correct formulation** so that consumers receive the right amount of each micronutrient and avoid overdoses. Micronutrients must also remain in the product during storage and transport until it is eaten (*These issues are technical, and the solutions are largely known; in contrast, the following two challenges are more difficult.*)
- **Achieve full compliance.** Motivate all of the businesses participating in the market to comply with fortification. If some businesses are able to escape regulation and sell unfortified products at a lower price, this undermines the incentives of those businesses that do fortify
- **Work with products that reach the poor.** Compliance for certain products and certain

markets is not enough; the programme must specifically cover the products eaten by poor and undernourished people.

Why is compliance difficult?

Motivating businesses to comply with fortification requires a well-functioning regulatory system, including government institutions with sufficient capacity. From the businesses' perspective, higher sales and a better reputation can encourage compliance; yet without effective monitoring and enforcement, this will not be enough. Experience from Nigeria shows how difficult it is to achieve compliance, even with strong support from government and donors, and commitments from major companies.

Covering markets characterised by small enterprises is challenging

The three products in Tanzania's fortification programme face very different market characteristics (see Table 2). While wheat flour is produced by only a handful of large companies, most maize flour is processed by small millers, as is a substantial portion of vegetable oil.

It is much more difficult for government agencies and development organisations to achieve compliance in markets characterised by many micro, small and medium enterprises (MSMEs). For example, there are thousands of small millers making maize flour in Tanzania, and they lack the skills, resources and regulatory incentives to undertake

Low compliance in Nigeria's fortification programme†

In Nigeria, fortification of wheat flour and vegetable oil has been mandatory since 2002. Development partners have provided institutional and technical support to regulatory institutions and to industry. Yet despite these investments, in 2013 a rigorous survey of products at the point of sale revealed very low levels of compliance.

Table 2 Market characteristics of fortified products in Tanzania[†]

Food type	Market is...	Degree of concentration	Participation in fortification programme
Wheat flour	Concentrated	Two firms control 94 per cent	Six companies
Maize flour	Diffuse	Ten firms control 5 per cent	None
Vegetable oil (sunflower and groundnut oil)	Mixed	Two firms control 80 per cent of formal market, [‡] but the poor buy from informal sector	Three companies

Notes: [‡] The formal market is predominantly for sunflower oil.

“Reducing undernutrition requires improving access to nutrient-rich foods for people who are poor and marginalised”

fortification. Identifying and interacting with these MSMEs will be difficult; many of them are not registered with government authorities.

It is important to note that this challenge affects not just small enterprises, but *all businesses in the marketplace*. Faced with competition from non-compliant MSMEs, the large companies will also be likely to underdose their products or to sell them at a premium price to wealthy consumers. Neither of these options will address undernutrition for the poor.

Poor people source food from small enterprises

Poor coverage of markets characterised by MSMEs is a major problem for the fortification programme. Available evidence suggests that poor populations in Tanzania tend to purchase their food from small enterprises (Table 2). For example, only 18 per cent of rural households purchased maize flour (as opposed to self-provisioning), according to the 2010 NDHS. The

same survey shows that, although 85 per cent of rural households purchased vegetable oil, only 49 per cent purchased brands from large manufacturers that participate in the fortification programme. Furthermore, even when poor households do buy centrally-produced products, they do so in much smaller quantities than wealthier households. However, different data sources are conflicting. There is a need for more evidence on where the poor source food.

Expanding coverage for fortification

Evidence suggests that expanding fortification to reach poor populations is a major challenge for Tanzania’s National Food Fortification Program. Learning more from experiences in other countries and sectors can and should inform the strategy, and interventions should be rolled out in a way that promotes learning and adaptation. Whichever strategy is adopted, it is essential to continue to build up the capacity of Tanzania’s regulatory agencies, particularly at the local level.

The Tuboreshe Chakula food processing and consumption project

Initiated in 2011, Tuboreshe Chakula (Improved Food) is a USAID Feed the Future programme in Tanzania that aims to upgrade Small and Medium Enterprises (SMEs) and facilitate fortification for maize flour and sunflower oil. The project provides business development services and promotes the formation of business associations. As of early 2014, none of the enterprises participating in the project had been able to undertake fortification. Obtaining regulatory certificates had been difficult, and only 15 maize mills had registered with the Business Registrations and Licensing Agency (BRELA). Faced with stalled progress, the project initiated a separate intervention by subsidising distribution of micronutrient powders to be used for fortification at home. According to the assessment of project managers, small enterprises will not fortify until there is higher demand or strict enforcement. The project’s experience highlights the need for programmes to maintain support for MSMEs over longer periods, while also improving regulatory coverage.

Policy recommendations

The Government of Tanzania, along with donor agencies and NGOs supporting the national fortification programme should do the following:

- Anticipate that motivating businesses to comply with fortification requirements will be extremely challenging, particularly for maize flour and vegetable oil.
- Invest in robust regulatory systems that cover both large and small food businesses and are effective at the local level. This requires reforms and major capacity building. Lobby for support from relevant ministries and other stakeholders, and examine options for ongoing funding.
- Stakeholders should systematically assess two options: expanding the market share of large companies to reach the poor, and building the capacity of MSMEs.
- Government authorities should create incentives for small enterprises to complete business registration – even if they are not currently fortifying. This will make them easier to identify, support and monitor.
- Donors should fund rigorous research on how poor households source food. Nutrition stakeholders need much more accurate data on which groups are reached by which fortified products. National nutrition surveillance systems should also be strengthened to provide more accurate and up to date information on the populations most affected by undernutrition.
- To improve nutrition for the poorest households, government and donors need to fund other kinds of programmes that are more effective in reaching these populations: social safety nets, publicly-funded food distribution and support for the poorest farming households.

† Please see Robinson *et al.* (forthcoming) 'Policy Options to Enhance Markets for Nutrient-Dense Foods in Tanzania' for further references.

Further reading

Maestre, M.; Robinson, E.; Humphrey, J. and Henson, S. (2014) *The Role of Businesses in Providing Nutrient-Rich Foods for the Poor: A Case Study in Tanzania*, Evidence Report 52, Brighton: IDS

Robinson, E.; Akinyele, I.O.; Humphrey, J. and Henson, S. (2014) *Policy Options to Enhance Markets for Nutrient-Dense Foods in Nigeria*, Evidence Report 66, Brighton: IDS

Robinson, E.; Temu, A.A.; Waized, B.; Ndyetabula, D.; Humphrey, J. and Henson, S. (forthcoming) *Policy Options to Enhance Markets for Nutrient-Dense Foods in Tanzania*, Evidence Report, Brighton: IDS

Authorship

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