

CATEGORY PORTFOLIO IMPROVEMENT:

MICRONUTRIENTS AND FORTIFICATION



CATEGORY CONTEXT

Micronutrient deficiencies remain a significant public health concern in Kenya, particularly among vulnerable population groups such as women of reproductive age and young children.^{1,2} Kenya has adopted mandatory food fortification of commonly consumed staples as a means of improving micronutrient intake at scale.²

However, there is reason for concern in Kenya regarding food companies fortifying packaged processed products that are considered 'unhealthy', potentially leading to adverse health outcomes. While fortification is essential for addressing micronutrient deficiencies, it is equally important for the food industry to prioritize the production and promotion of foods that are inherently rich in essential macro- and micronutrients and not fortify products with poor nutritional quality.

TABLE 1
POLICY LANDSCAPE

National Policy or Regulation	Summary
National Food Fortification Strategic Plan (2018-2022)	A framework for addressing micronutrient deficiencies through staple foods fortification, without explicitly applying to fortified non-staples or packaged processed foods, or the use of fortified staples as ingredients in packaged processed foods. ³
Food, Drugs and Chemical Substances Act, Chapter 254, 2012	Mandates that salt, wheat flour, maize flour, and vegetable fats and oils should be fortified with key micronutrients in line with the Codex and WHO/FAO Guidelines. ⁴ Requires that fortified foods are labelled in line with national legislation (Labelling of prepackaged foods – KS EAS 38 and Guidelines for health and nutrition claim – KS CAC/GL 23) and Codex Guidelines. ⁵
KS EAS 767: Specification for Maize Flour	Establishes mandatory fortification requirements for maize flour. ⁶
KS EAS 768: Specification for Wheat Flour	Establishes mandatory fortification requirements for wheat flour. ^{6,7}
KS EAS 769: Specification for Edible Fats and Oils	Establishes mandatory fortification requirements for edible fats and oils. ⁶
KS EAS 35: Specification for Iodized Salt	Establishes mandatory iodine fortification levels for salt. ⁸
East African Standard RS EAS 1023:2021 Food Fortification Premix and Fortificants: Specification	Provides requirements and specifications for food fortification premixes and fortificants used in the East African region. ⁹
Guidelines for Use of Nutrition and Health Claims (KS CAC/GL 23)	Defines various types of claims, including nutrient content claims, nutrient comparative claims, and nutrient function claims. However, it does not provide a formal definition of what constitutes a 'healthy' food product. ¹⁰
Fortification Mark of Quality	The Kenya Bureau of Standards facilitates a voluntary certification process, where companies can pay KES 10,000 per product to apply the KEBS Fortification Mark of Quality. ¹¹

FINDINGS

Corporate profile

Seven out of 12 companies assessed in the Corporate Profile were found to be fortifying their products. This information was collected either on the company's website or shared by the company. Of these seven, two companies (Bidco and Kapa Oil) fortify edible oil with vitamins A and D, as mandated in Kenya, by means of adding premix. Capwell also confirmed to ATNi that it is fortifying maize and wheat flour as required by law in Kenya.

Micronutrient information was also found for other product categories that fall outside the scope of existing mandatory fortification regulations^a (see Table 2). For most companies, this information was found on back-of-pack nutrition labels, meaning it was not always clear whether the micronutrients are added by means of fortification or inherent in some of the products' ingredients. Additionally, it remains unclear if companies aside from Flora FG are using mandatory fortified staples as ingredients in formulations of other packaged processed foods to enhance their nutritional quality.

TABLE 2
COMPANIES' PRODUCT CATEGORIES
FOR WHICH MICRONUTRIENT
INFORMATION WAS FOUND

Company	Product Categories	Data source
Bidco	Butter and spreads, energy drinks, juice and rice, pasta and noodles	Micronutrients listed on back-of-pack label
Kapa Oil	Butter and spreads, pasta and noodles	Micronutrients listed on back-of-pack label
Capwell	Rice	DSM ¹²
Flora FG	Blue Band margarine, sweet spreads	Vitamin A and D premix, and use of fortified edible oil as ingredient for margarine; and micronutrients listed
Brookside	Milk and breakfast cereals	Micronutrients listed on back-of-pack label
Kevian	Energy drinks	Micronutrients listed on back-of-pack label
Highlands	Juice and concentrates	Micronutrients listed on back-of-pack label

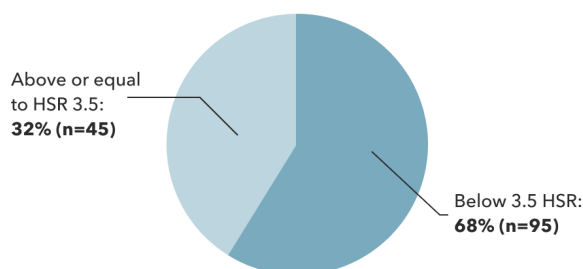
Kenya-headquartered companies included in this assessment have not published information on the fortification practices, policies, or procedures they may have in place for determining which products are suitable to be fortified and how they are fortified. Of the 12 companies assessed, only one company—Flora FG—has a public global commitment regarding the criteria it adheres to when fortifying its products with micronutrients. The company commits to:

- Implement restrictions relating to nutrition when fortifying products, not related to the formal nutrition criteria on an NPM.
- Adhere to the Codex Alimentarius CAC/GL 9-1987 General Principles for The Addition of Essential Nutrients to Foods, which provides international guidance on the appropriate selection and levels of micronutrients, for use in fortification. This commitment is in line with Kenyan regulation.

Flora FG was the only company in the assessment to provide evidence of using external analytical testing methods to verify micronutrient levels in the fortified staples that it produces, as well as in its own products.

Two other global companies—Coca-Cola and Nestlé—also provided evidence of a similar global commitment without linking the fortification of their products with specific nutrition criteria. However, only Nestlé's policy is available in the public domain.

MICRONUTRIENTS & FORTIFICATION



Proportion of fortified products classified as 'healthier using the HSR'

a. The Kenyan government mandates the fortification of staple foods such as salt, vegetable oils and fats, wheat flour, and maize flour. Specific standards can be found under Kenya's Food, Drugs and Chemical Substances Act (CAP 254), as amended in 2015 (Legal Notice No. 157).



BOX 1 PRODUCT PROFILE

ATNi's Product Profile report assessment confirmed that companies are fortifying products beyond mandatory fortified staples. The assessment, covering 30 of the largest food & beverage manufacturers operating in Kenya (including those in ATNi's corporate Profile assessment), found that 24 companies had at least one product for which micronutrient data was available. Of the 983 products assessed, for 333 (32%) products, data was available for at least one micronutrient. This includes staple products that are mandatorily fortified. An additional 120 (11%) products were voluntarily fortified (excluding oil and flour⁷). The greatest number of products with micronutrient information (inherent from ingredients in the product or through fortification) was found in the Dairy (n=184, 55%), Juice (n=39, 12%) and Breakfast Cereal (n=28, 8%) categories. No data were found for products in the Asian speciality drinks, Carbonates, Instant coffee mixes, Meat and seafood substitutes or Sports drinks categories.

TABLE 3
FORTIFICATION STATUS OF PRODUCTS FOR WHICH MICRONUTRIENT DATA WAS FOUND

Category	Total no. products	No. products with micronutrient data ^h	No. fortified products ³
Asian specialty drinks	1	0	0
Baked goods	9	4	0
Bottled water	10	2	0
Breakfast cereals	41	28	26
Butter and spreads	40	37	28
Carbonates	44	0	0
Concentrates	20	0	4
Confectionary	118	2	0
Dairy	166	147	7
Edible Oils*	22	18	21
Energy drinks	8	6	5
Flour*	6	6	6
Ice cream	38	5	0
Instant coffee mixes	1	0	0
Juice	184	39	20
Meat and seafood substitutes	3	0	0
Other hot drinks	12	6	2
Plant-based dairy	11	4	9
Processed fruit and vegetables	9	3	0
Rice, pasta and noodles	43	13	10
Packaged ready-to-drink coffee	2	2	0
Sauces, dips and condiments	16	1	0
Savoury snacks	75	1	0
Sports drinks	2	0	0
Sweet biscuits and snacks	95	6	4
Sweet spreads	7	3	1
Total	983	333	144

* Category is subject to mandatory fortification regulations in Kenya.

Note: Grey rows indicate product categories in which no products with micronutrient data were found.



BOX 2

PRODUCT PROFILE HSR AND HSR+ RESULTS

Overall, a HSR score could be calculated for 746 products in the product profile assessment. Of these, 140 (19%) were classified as fortified, including staple products subject to mandatory fortification (edible oil, maize flour, and wheat flour). Table 4 below summarises the number of products classified as fortified, categorized by Euromonitor categories along with their mean HSR and mHSR+ micronutrient scores. The highest number of fortified products were in the Dairy (n=35, 32%), Breakfast cereal (n=26, 18%), Juice (n=20, 20%) and Edible oil (n=21, 14%) categories. For some product categories, nutritional information was insufficient to calculate a HSR, and therefore scores are not reflected in the table below. Analyzing products with the HSR, 68% did not meet the 'healthier' threshold of 3.5 stars, and 57% scored 1 star or below indicating many may not be suitable for fortification. For example, in the Dairy category, 74% of fortified products scored 1.5 stars or less. The mean healthiness for products analyzed with the mHSR+ micronutrients with protein in the model was 5% higher than with the HSR model.

Comparatively, ATNi's [Product Profile assessment in Tanzania](#) shows a higher proportion of 'healthier' fortified products at 67%, however the total number of fortified products included in the HSR assessment was lower in Tanzania (n=40) than in Kenya (n=140).

TABLE 4
PROPORTION OF FORTIFIED PRODUCTS CLASSIFIED AS 'HEALTHIER' USING THE HSR AND HSR+

Category	No. fortified products/total no. products assessed in HSR (%)	HSR										Mean HSR	Mean mHSR+ Micro-nutrients
		Below 3.5 HSR:68%						Above or equal to HSR 3.5:32%					
		0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0		
Breakfast cereals	25/40 (62%)	0	0	0	0	1	3	4	7	7	3	4.0	4.7
Butter and spreads	28/39 (72%)	3	19	2	0	1	2	1	0	0	0	1.3	1.3
Concentrates	0/13 (0%)	3	0	0	0	0	0	0	0	0	0	0.5	0.5
Dairy	35/174 (20%)	5	19	2	0	1	2	1	5	0	0	1.6	1.8
Edible Oils	20/21 (95%)	0	13	0	2	0	2	2	0	1	0	1.7	1.7
Energy drinks	5/6 (83%)	4	0	0	1	0	0	0	0	0	0	0.8	0.9
Flour*	5/5 (100%)	0	0	0	0	0	0	2	3	0	0	3.8	4.6
Juice	20/102 (20%)	20	0	0	0	0	0	0	0	0	0	0.5	0.5
Other hot drinks	2/9 (81%)	1	0	1	0	0	0	0	0	0	0	1.0	1.0
Plant-based dairy	9/11 (81%)	0	0	0	0	0	0	0	3	6	0	4.3	4.3
Rice, pasta and noodles	11/31 (35%)	7	1	2	0	0	0	1	0	0	0	1.0	1.0
Sweet biscuits, snack bars and fruit snacks	4/46 (7%)	2	2	0	0	0	0	0	0	0	0	0.8	0.8
Sweet spreads	1/5 (20%)	1	0	0	0	0	0	0	0	0	0	0.5	0.5
Total	140/463 (30%)	43	35	5	3	2	7	10	18	14	3	2.0	2.2
% of total	19%	31%	25%	3.5%	2%	1.4%	5%	7%	13%	10%	2%	-	-

*Table represents the number of products identified as fortified based on information shared by companies, Innova Market Insights or public sources. Products were classified as fortified, if a micronutrient was listed in the ingredients.

*Product nutrient information was missing for HSR analysis in the following categories: Meat and seafood substitutes, baked goods, bottled water, confectionery, Ice cream, Instant coffee mixes (powder), Meat and seafood substitutes, Processed fruit and vegetables, Sauces, dips and condiment, Savoury snacks, Sports drinks.



BOX 3 PRODUCT PROFILE KNPM RESULTS

Table 5 presents the number of fortified products that passed the KNPM. Of the 116 out of 840 fortified products included in the KNPM assessment, 84% did not pass the model and would require an FOP warning label.

TABLE 5
PROPORTION OF FORTIFIED PRODUCTS CLASSIFIED AS 'HEALTHIER' USING KNPM

Category	No. fortified products/total no. products assessed in KNPM (%)	KNPM	
		Did not pass	Passed
Asian specialty drinks	0/1(0%)	0	-
Baked goods	0/6 (0%)	0	-
Bottled water	0/10 (0%)	-	0
Breakfast cereals	25/40 (63%)	22	3
Butter and Spreads	28/39 (72%)	21	7
Carbonates	0/44 (0%)	0	0
Concentrates	0/20 (0%)	4	-
Confectionary	0/117 (0%)	0	0
Dairy	7/138 (5%)	7	0
Energy drinks	5/8 (63%)	5	0
Ice cream	0/24 (0%)	0	-
Instant coffee mixes (powder)	0/1 (0%)	0	-
Juice	20/184 (11%)	20	0
Meat and seafood substitutes	0/3 (0%)	0	-
Other hot drinks	2/12 (18%)	2	0
Plant-based dairy	9/11 (81%)	0	9
Processed fruit and vegetables	0/4 (0%)	-	0
Rice, pasta and noodles	11/43 (26%)	11	0
Sauces, dips and condiments	0/12 (0%)	0	0
Savoury snacks	0/68 (0%)	0	-
Sports drinks	0/2 (0%)	0	0
Sweet biscuits, snacks and fruit snacks	4/48 (8%)	4	-
Sweet spreads	1/5 (20%)	1	0
Total number	116/840	97	19
Proportion of total	14%	84%	16%

*The KNPM does not include single ingredient products such as edible oil and flour categories.

KEY INDUSTRY RECOMMENDATIONS

To ensure fortified packaged foods & beverages contribute to healthy diets and help to address micronutrient deficiencies in Kenya, food & beverage companies are encouraged to:

- List and disclose levels of micronutrients present in products on back of pack nutrition labels, including fortified staples used as ingredients and standardize metrics.
- Develop and publish a fortification policy that explicitly commits to follow the CODEX CAC/GL 9-1987 and/or the WHO/FAO 'Guidelines on Food Fortification with Micronutrients' as per standards set out by the Kenyan government, and only fortify products that meet the nutrition criteria of an NPM or as required by law to avoid the any health 'halo' effect.
- Publish quality control or assurance methods to determine whether the levels of micronutrient(s) are adequate in the final product.

POLICY RECOMMENDATIONS

While clear policy infrastructure exists to govern the fortification of certain staple foods in Kenya, the government has an opportunity to expand this framework to regulate the fortification of packaged processed foods, including mandating the use of fortified staples as ingredients in such products.

The absence of clear policy guidance allows F&B manufacturers to fortify products that may be high in sugar, salt, and unhealthy fats, potentially leading to misleading health claims and consumer perceptions, and undermining broader nutrition goals.

Further, Kenya's regulatory framework for food fortification includes standards for labelling and health claims on food products, but these do not establish a formal definition a 'healthy' product based on formal nutrition criteria. Claims can therefore be used to suggest that a fortified product will yield certain health benefits, without considering the overall nutritional profile of the product.

To address these gaps, policymakers are encouraged to use the outcomes of this research to help develop a roadmap for industry and policymakers outlining specific measures to strengthen policy on the fortification of packaged processed foods.



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