



Food fortification in India

An overview of how attitudes to food fortification are changing and how they are impacting the legislative landscape

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With a population of over 1.3 billion¹, India is the second most populated country in the world. Although the country has fostered one of the fastest-growing major economies in recent decades, India continues to face the challenges of poverty, malnutrition and inadequate public healthcare. Micronutrient deficiencies and the effects of malnutrition affect large segments of India's population, making efforts to curtail this issue a major focus. In this white paper, Valentina Capuano discusses the current food-fortification scenario in India.

An ongoing process, India's food fortification campaign has been in motion for some time. However, the 2016 publication of the Draft Food Safety & Standards (Fortification) Regulation marked a turning point.

Since then, several Government-funded initiatives – highlighted in the box opposite – have been launched to try to combat micronutrient deficiencies and the effects of malnutrition within the most affected population groups. Although micronutrient deficiencies can affect all age groups, young children and women of reproductive age tend to be most at risk of developing them. For example, more than half of all women in the 15-49 age group, approximately a quarter of all men in the same age group and seven out of ten children between 6-59 months of age, are anaemic.²

Micronutrient malnutrition is a serious health risk in India, mostly for those who are

economically disadvantaged and do not have access to safe, nutritious food. Either they do not consume a balanced diet or they lack variety which results in inadequate micronutrients being consumed.

For these reasons, state-wide fortification initiatives have been implemented for various

The **Integrated Child Development Services (ICDS)** is an Indian government welfare programme which provides food, preschool education and primary healthcare to children under 6 years and their mothers.

The **Public Distribution System (PDS)** is an Indian food security system maintained by the Food Corporation of India to distribute subsidised food and non-food items to India's poor through a network of fair price (ration) shops.

The **Midday Meal Scheme (MDMS)** is a school meal programme to improve the nutritional status of school-age children through free lunches on working days in primary and upper primary classes in government & government-aided education centres.

¹ United Nations (2017) World Population Prospects. Accessed: https://esa.un.org/unpd/wpp/Publications/Files/WPP2017_KeyFindings.pdf

² Public Health Foundation of India (2015) India Health Report: Nutrition. Accessed: http://www.transformnutrition.org/wp-content/uploads/sites/3/2015/12/INDIA-HEALTH-REPORT-NUTRITION_2015_for-Web.pdf

food commodities such as wheat flour, rice, oil and milk under different Government Schemes.

Food Safety & Standards (Fortification) Regulation, 2016

Despite malnutrition severely affecting the Indian population, under the compositional standards contained in the Food Safety & Standards (Food Products Standards & Food Additives) Regulations, 2011, manufacturers are not obliged to fortify a significant number of foods-stuffs – exemptions include margarine and infant formula.

However, India’s fortification landscape is about to change with the publication of the Draft Food Safety & Standards (Fortification) Regulation, 2016. This piece of legislation introduces the mandatory fortification of rice, salt and flour (including Atta, Maida and Vanaspati) sold in the country.

The Draft Food Safety & Standards (Fortification) Regulation, 2016, clearly reflects the Indian authorities’ intention to promote the fortification of food. The Regulation aims to introduce the mandatory fortification of foods considered a staple for the Indian population; the foods have been chosen as they are consumed on a large scale. Vegetable oil and milk products can be fortified on a voluntary basis in accordance with the values set in the Draft Regulation. However, following recent meetings between food business operators and the Food Safety & Standards Authorities of India (FSSAI), oil and milk manufacturers have also expressed their interest in being aligned with the provisions laid down in the Draft Fortification Regulation.

The table below shows fortification levels of mandatory nutrients in each food. Additional nutrients can be added to flour and other foods on a voluntary basis.

Summary of mandatory nutrients		
FOOD	NUTRIENT	LEVEL OF FORTIFICATION
Salt	Iodine (<i>Manufacture level</i>)	Not less than 30 ppm on dry weight
	Iodine (<i>Distribution channel</i>)	Not less than 15 ppm on dry weight
	Iron	850-1100 ppm
Oil	Vitamin A	25 IU per mg
	Vitamin D	4.5 IU per mg
Milk	Vitamin A	770 IU
	Vitamin D	550 IU
Flour		
Vanaspati	Synthetic Vitamin A	Not less than 25 IU per g
Atta	Iron	20 mg
	Folic Acid	1300 µg
	Vitamin B12	10 µg
Maida	Iron	60 mg
	Folic Acid	1300 µg
	Vitamin B12	10 µg
Rice	Iron	20 mg
	Folic Acid	1300 µg
	Vitamin B12	10 µg

Fortification logo and labelling

In India, the use of symbols on labelling is commonplace, an obvious example of this is the vegetarian and non-vegetarian symbols on prepacked foods.

Therefore, it is not surprising that the Draft Food Safety & Standards (Fortification) Regulation, 2016, includes a requirement for

fortified foods marketed in the country to bear a logo on their labels.

'The use of visuals and symbols are simple but powerful tools to help people identify and become aware of the goal better. That is why a logo which indicates a fortified food has been created. The scope of this logo is to be easily spotted and even recognised by the farmer and his wife to understand that their food is being fortified for their families' wellbeing. Since the logo will go on to packaging formats of staple products, the graphic quality of the logo needs to be extremely simple'.³



However, the Draft does not establish specific provisions relating to how the logo should be presented. Additional information on size, colour and contrast is available on the Food Fortification Resource Centre's official website: <http://ffrc.fssai.gov.in/fortification/jsp/logo.jsp>.

Food Fortification Resource Centre (FFRC)

The FFRC plays a vital role in India's food fortification campaign. The organisation aims

to educate Indian States on the importance of fortifying food. It strives to promote fortified foods within nutrition programmes and provides technical support, especially to small-scale food manufacturers, to enable companies to produce fortified foods.

Compliance

Although the Draft was launched in November 2016, compliance is not mandatory at present. It is still being evaluated by authorities and stakeholders, therefore changes can be expected – these will be incorporated into the final version.

Nevertheless, Indian authorities are recommending that food business operators comply with the provisions of the Draft. Once the final regulations are notified in the Gazette of India, compliance will be mandatory.

³ Food Safety & Standards Authority of India (2017) Logo Specifications. Accessed: <http://ffrc.fssai.gov.in/fortification/jsp/logo.jsp>

How Leatherhead can help

In the ever-changing, fast-paced food & drink industry, Leatherhead's 30+ regulatory advisors constantly scan the legislative landscape within all major international markets and report emerging issues and proposals to members via a weekly global legal highlights e-mail. During the process of bringing the Food Safety & Standards (Fortification) Regulation into Indian food law, Leatherhead's Regulatory Team will be on-hand to provide timely advice about changes as and when they occur.

Our global regulatory team covers all major international markets and is able to help with all questions relating to proposals and their long term impact. We also provide training on food supplement legislation and give advice on additives, flavourings and ingredients, as well as label and formulation checks.

If you have any questions or need clarification on any aspect of Indian food law, our regulatory team is only an email or phone call away: legislation@leatherheadfood.com, +44 (0)1372 376761.

About the author

Valentina Capuano is a Principal Regulatory Analyst at Leatherhead Food Research with native Italian language skills and extensive knowledge on food legislation in India, as well as EU food legislation and a number of EU member states and International countries. Prior to joining Leatherhead Food Research, Valentina worked at "University of Salento" as Adjunct Associate Professor and Adjunct Researcher for optometry and contact lens fields, delivering training courses for professional opticians and optometry students.

About Leatherhead Food Research

Leatherhead Food Research provides expertise and support to the global food and drinks sector with practical solutions that cover all stages of a product's life cycle from consumer insight, ingredient innovation and sensory testing to food safety consultancy and global regulatory advice. Leatherhead operates a membership programme which represents a who's who of the global food and drinks industry. Supporting all members and clients, large or small, Leatherhead provides consultancy and advice, as well as training, market news, published reports and bespoke projects. Alongside member support and project work, our world-renowned experts deliver cutting-edge research in areas that drive long-term commercial benefit for the food and drinks industry. Leatherhead Food Research is a trading name of Leatherhead Research Ltd, a Science Group (AIM:SAG) company.

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