

# Large-scale food fortification: a simple, safe, and cost-effective way to add essential micronutrients to food and tackle malnutrition



The global burden of malnutrition in all its forms – undernutrition (wasting, stunting, micronutrient deficiencies) and over-nutrition (overweight, obesity and related non-communicable diseases) – affects over two billion people<sup>4</sup>, with specifically 800 million people going to bed hungry<sup>5</sup>. Further, food insecurity and malnutrition are getting worse. Conflicts, climate change, and economic slowdowns (worsened by the pandemic) increased the number of people without access to adequate nutrition in 2020 by 320 million, to 2.4 billion.

## Why large-scale staple food fortification?

The fortification of staple foods, such as flour and rice, is a well-established, trusted, and proven method of addressing micronutrient deficiencies on a large scale and in a cost-effective way. When a diet is calorie-rich but nutrient-poor, micronutrient deficiencies can arise leading to a lack of vitamins and minerals crucial to the body's development and function resulting in, for example, a weakened immune system and increased risk of infections or disease<sup>6</sup>. Fortification involves adding, or replacing, essential vitamins and minerals that may have been lost during processing or are deficient in the population. By increasing the vitamin and mineral content of foods that people consume daily, their diets improve helping build immunity across the entire population including vulnerable groups. By offering a long-term approach to addressing widespread micronutrient deficiencies, staple food fortification can ensure the proper mental and physical development of children and good health of adults. This has the potential to significantly reduce healthcare costs by millions each year.

## DSM commits to help filling the micronutrient gap of 800 million people to be closed by 2030

Large-scale fortified staple food fortification will significantly contribute to reaching the commitment, some examples:

- Supporting the School Meals Coalition striving for every child to have the opportunity to receive a healthy, nutritious meal in school by 2030 for children to reach their full physical and mental potential
- Fortified rice in workers' meals is linked to reduction of diseases, which improves earnings and enhances work productivity for a limited added cost to the employer

There is a wide range of staple foods that can be fortified, influenced by what is readily available and most commonly consumed in countries. Rice is consumed by more than 3 billion people worldwide making it the world's number one staple food. Fortifying rice with vital micronutrients is an effective solution for addressing deficiencies and improving the micronutrient status of millions of people worldwide. Providing fortified foods through social safety nets and open market, in the workplace and at school, is especially effective. As a pioneer in rice fortification, DSM provides fortified rice kernels, ready-to-use micronutrient blends and assistance in development of most appropriate micronutrient compositions.

**We call on governments and the nutrition community worldwide** to partner for ensuring the success of fortification initiatives in improving the nutritional status of the global population. It is important that mandated fortification is properly monitored and enforced. Meanwhile, voluntary fortification gives food manufacturers the opportunity to contribute to their consumers' health, add value to products as well as gain a competitive edge in the market.

<sup>1</sup> UNICEF, (April 2021), <https://data.unicef.org/topic/nutrition/malnutrition/>

<sup>2</sup> Bill and Melinda Gates foundation, Goalkeepers, <https://www.gatesfoundation.org/goalkeepers/accelerators/maternal-nutrition/>, accessed 15 August 2021.

<sup>3</sup> The World Bank, Birth rate, crude (per 1,000 people), <https://data.worldbank.org/indicator/SP.DYN.CBRT.IN?locations=XO>, accessed on 20 March 2020.

<sup>4</sup> <https://www.gainhealth.org/about/malnutrition#>

<sup>5</sup> Sustainable Development Goal 2, Zero Hunger: <https://sustainabledevelopment.un.org/sdg2>

<sup>6</sup> <https://sdg2advocacyhub.org/chefs-manifesto/snapshot-fortification>