



# STAPLE FOOD FORTIFICATION

## A Commitment Guide for the UN Food Systems Summit and Tokyo Nutrition for Growth Summit

Ending hunger and malnutrition in all its forms is about more than securing enough food to survive -- what people eat must also be nutritious. However, nutritious foods and, by extension, healthy diets are unaffordable and unattainable for vast numbers of families. Over 3 billion people cannot afford a healthy diet. In sub-Saharan African and southern Asia this is the case for 57 percent of the population. The effects of climate change are likely to make this problem worse. In 2019, the UN Intergovernmental Panel on Climate Change found that increased carbon-dioxide levels lower the nutritional value of inexpensive food staples like rice and wheat.

In the context of a deepening crisis of hunger and malnutrition brought by the COVID-19 pandemic, a food system transformation is urgently needed to reduce the cost of nutritious foods and increase the affordability of healthy diets. Evidence-based and highly cost-effective solutions that can reach all people, such as fortifying staple foods like maize meal, rice, wheat flour, cooking oil, and salt with essential vitamins and minerals is a crucial intervention that can help to ensure that the food system delivers a more nutritious diet to all.

### Two Key Opportunities on the Horizon for 2021:

The UN Food Systems Summit, UN Climate Change Conference (COP26) and Tokyo Nutrition for Growth (N4G) Summit will take place towards the end of 2021. All three events are key milestones on the road to recovery from the devastating impacts of the COVID 19 pandemic on food security and nutrition. The summits are also key moments to mobilize support for and prioritization of staple food fortification as a no-regrets, game-changing intervention to fight disease and poverty among the world's most vulnerable communities. The need to accelerate progress is particularly apparent considering the imminent conclusion of the UN Decade of Action on Nutrition in 2025 and the 2030 deadline for meeting the Global Sustainable Development Goals (SDGs).

In September 2021, UN Secretary-General António Guterres will convene a Food Systems Summit as part of the Decade of Action to achieve the SDGs. The Summit will launch bold new actions to deliver progress on all 17 SDGs, each of which relies to some degree on healthy, sustainable, climate-resilient, and equitable food systems. In this context, staple food fortification stands out as a food systems intervention that makes diets more nutritious for everyone. Subsequently, in November the COP26 Summit will convene global stakeholders to accelerate action towards the goals of the Paris Agreement and the

UN Framework Convention on Climate Change, providing the perfect opportunity to emphasize the nexus between food systems, health, and climate and the role that food fortification can play in all three areas.

The Tokyo N4G Summit will take place in December 2021. The Nutrition for Growth Summit occurs every four years in the year of the summer Olympics, and is an opportunity for donors, governments, UN agencies, and business to step into the global spotlight as nutrition champions by making specific, measurable, achievable, relevant, and time-bound (SMART) commitments to end malnutrition worldwide.

The Government of Japan will also host the N4G Summit. The Japanese Ministry of Foreign Affairs has been leading preparation for the Summit with a strong focus on private sector engagement, a legacy of Japan's historical leadership in this area through initiatives such as the Nutrition Japan Public Private Platform (NJPPP).

## **Examples of SMART Pledges to Improve Nutrition and Strengthen Food Systems through Staple Food Fortification**

Staple food fortification is widely recognized as a development and public health “best buy.” In 2008, the Copenhagen Consensus Expert Panel ranked fortification with micronutrients (vitamins and minerals), among the top three international development priorities using a cost-benefit analysis. Every \$1 invested generates \$27 on average in economic return from averted disease, improved earnings, and enhanced work productivity.<sup>1</sup>

Large-scale food-fortification has an impressive record of success. In 1990 world leaders gathered at the UN and launched a global movement for universal salt iodization to protect the developing brains of children. As a result, the proportion of households consuming iodized salt worldwide increased from less than 20 percent in the early 1990s to 88 percent today and the number of countries with iodine deficiency (the world's leading cause of preventable mental impairment) decreased from over 110 to 20.

Fortification with folic acid (vitamin B9), iron, vitamin A, and zinc shows similar promise. Research shows that fortification with folic acid reduces the prevalence of debilitating birth defects such as spina bifida by 41 percent. Fortification with iron could help to achieve a 34 percent reduction in iron deficiency anaemia. Cooking oil fortified with vitamin A significantly reduces vitamin A deficiency – a leading cause of child blindness and mortality with half of those affected dying within 12 months of losing their sight.<sup>2</sup> Zinc fortification improves zinc status and holds potential to reduce associated risks of diarrhoea, stunting, and preterm birth.

The use of staple food fortification to combat malnutrition has made tremendous progress in the past 80 years. Since 1940, 142 countries have mandated fortification of at least one food vehicle – maize flour, rice, wheat flour, or salt.

But while staple food fortification is mandatory in many countries, a substantial unfinished agenda on fortification remains. In many countries, staple foods are not fortified to the standard required by national mandates. In some places, mandates need updating to align them with best practice according to WHO recommendations. Government monitoring and enforcement and private sector quality control and compliance must improve to ensure the availability of adequately fortified staple foods for all. In addition, there are over 80 additional low and middle income countries (LMICs) with inadequate intakes of micronutrients that are without fortification legislation for one or more highly consumed staple foods and condiments.

A broad range of experts in the field of staple food fortification, including Food Fortification Initiative, Global Alliance for Improved Nutrition, UNICEF, Helen Keller International, International Zinc Nutrition Consultative Group, Iodine Global Network, Nutrition International, PATH, Sanku, Scaling Up Nutrition Movement, TechnoServe, Vitamin Angels, and World Food Programme, have come together to endorse a set of SMART commitments that can be customized and used by donors, governments, and businesses in their pledges and commitments at the FSS and N4G. Each of these recommended commitments would expand access to adequately fortified foods in countries that experience a high degree of micronutrient malnutrition.

---

<sup>1</sup> <https://www.gatesfoundation.org/TheOptimist/Articles/food-fortification-to-fortify-the-future>

<sup>2</sup> <https://pubmed.ncbi.nlm.nih.gov/30997493/>

## Examples of SMART Pledges

### Donors, Multilateral Agencies, and NGOs

Commit [number] [currency] to promoting and building new fortification programs in countries with a high burden of micronutrient deficiencies, including by:

- strengthening government capacity to design, enact, and enforce large scale staple food fortification programs, including new food vehicles and additional micronutrients where these are warranted and supporting high-quality fortification that meets WHO recommendations.
- supporting the availability of quality vitamin/mineral premix and the capacity of the food industry to fortify in compliance with national standards;
- investing in digital platforms and systems to monitor and ensure fortification quality;
- generating and sharing data on fortification quality and the impact of food fortification programs on nutrition outcomes.

### National Governments

Conduct an analysis to:

- evaluate the quality and coverage of existing fortification programmes, and if found to be robust, evaluate the effectiveness, safety, and impact of existing fortification programs, including how these programs could be improved;
- assess the need for new staple food fortification vehicles or additional nutrients that should be added to existing national fortification standards;
- determine what support national actors require to move the fortification agenda forward;

And establish or amend fortification policies and standards in accordance with the results of this analysis.

Conduct and publish an annual national assessment of the quality and coverage of fortified staple food. Add appropriate fortification-related questions to relevant national surveys.

Require the distribution of fortified foods in social safety net programs. When social safety nets distribute in-kind food, require that staples are fortified. When social safety nets are cash or voucher based, require availability of fortified foods and the use of Social and Behaviour Change Communication to build demand for them in the target population. Require procurement of fortified staple foods by public institutions such as schools, hospitals, and shelters. Educate the public regarding the importance of good nutrition to good health.

Create (or increase) a line in the national budget to [number] [currency] for oversight, enforcement, and impact assessment of fortification standards and regulations. Appoint or create a nodal ministry to oversee national fortification programs.

Create (or increase) a line in the national budget to [number] [currency] for financial support to build the capacity of small, and medium enterprises to fortify staple foods in compliance with national standards.

Support the ability of the private sector to produce fortified staple foods by:

- classifying vitamin and mineral premix as an essential health commodity to ensure rapid clearance at ports and border crossings;
- exempting premix from import duties and taxes;
- prioritizing the use of foreign exchange for premix imports; and/or
- maintaining or facilitating a stock of premix at national level to ensure local availability for producers of fortified foods.

Private Sector
Food Producers
Use fortified ingredients such as iodized salt and fortified flour, rice, and oil. Source fortified ingredients locally wherever possible.
Offer voluntary expertise and support to [number] MSMEs annually to support their ability to fortify staple food products.
Regularly publish independently verifiable data on fortification quality, using a digital tool such as Fortify Management Information System (FortifyMIS).
Release annual reports containing information relevant to fortification, including the volume of fortified products produced and the volume of premix procured for fortification.
Appropriately label products as fortified, using the national or regional fortification logo where one exists.
Issue a public statement of support for government efforts to instate and enforce fortification mandates and standards.
Offer [number] hours of expertise, advice, and training to MSME's on staple food fortification.
Educate customers about the benefits of fortified staple foods, for example by leading, joining or funding a public education campaign.
Companies in the Premix and Nutrient Analytics Supply Chain
Abide by the WHO's Code of Practice for Food Premix Operations, <sup>3</sup> including completing and publishing the results of a self-audit
Achieve an internationally-recognized certification, such as the Global Food Safety Initiative by [date]
Institute a pricing scheme to provide premix at reduced cost to [number] high-need markets in emerging and developing countries
Provide [number] hours of technical advice and training to factories and laboratories annually to support quality fortification in countries with a high burden of malnutrition
Create a logistics plan with [number] food producers in high-need markets to ensure sufficient lead-time so that critical supplies arrive in time and at a reasonable cost
Provide favourable International Commercial Terms and extended payment terms to [number] companies in high-need markets where external shocks have delayed or reduced income
Invest [number] [currency] in development of more-affordable devices, rapid test kits for micronutrient analysis of fortified foods, digital tools for monitoring fortification levels, smart dosifiers, and/or inline analytical and data collection technologies
Invest [number] [currency] in R&D and supply chain innovations to improve combinability, stability, bioavailability, and affordability of fortificants
Invest [number] [currency] in optimization of multiple fortification technologies (e.g. salt), improving the cost effectiveness of existing technologies (e.g. fortified rice kernels) and research into fortification of new food vehicles
Support [number] MSMEs through reduced prices or free-of charge supplies of relevant ingredients, reagents, and equipment for food fortification

<sup>3</sup> <https://iris.paho.org/bitstream/handle/10665.2/37201/COPPremixOperations.pdf?sequence=1&isAllowed=y>