

# Introducing fortified rice in Myanmar

Tackling micronutrient malnutrition

## Hidden hunger

Malnutrition in Myanmar is among the highest in Asia, with one in three children suffering from stunting and seven percent acutely malnourished. 58 percent of children aged 6 to 59 months and almost 50 percent of pregnant women are also anemic.<sup>1</sup> Many more are suffering from micronutrient deficiencies, which have lifelong consequences for health, productivity, and mental development.

Rice is the staple food of Myanmar, but it lacks many necessary vitamins and minerals found in a balanced diet. Fortifying rice is an effective way to improve nutrition without requiring people to change their daily eating habits and without introducing a genetically modified substance.

## A proven approach

Fortified rice is a culturally appropriate solution aimed at breaking the cycle of micronutrient malnutrition. Hot extrusion technology is used to combine rice flour and micronutrients—including iron, zinc, vitamin A, thiamin, folic acid, and other B vitamins. This mixture is pressed through pasta-making equipment and formed into the shape of rice grains. When these grains are blended with traditional rice with just 1 to 2 fortified grains per 100 grains of regular rice, the result is fortified rice that is nearly identical to regular rice in aroma, taste, and texture.

PATH has supported the introduction of fortified rice in several countries around the world, including Brazil, India, and Cambodia. Working with global partners, we have developed technical standards that ensure the nutritional integrity of fortified grains throughout transport, storage, washing, rinsing, and cooking and promote the use of ingredients that meet international regulatory standards.

Fortified rice has proven safe and effective in pilot programs and field studies in communities with varying cultural practices and nutritional needs across the globe. The solid evidence base includes more than 30 clinical trials, acceptability studies, and market introductions.

**“I produce fortified rice because it is a two-way street. It provides nutritional benefit for the community, and it’s also good for my company’s bottom line.”**

**U Myo Wai, U Cho Rice Mill**



Fortified rice can provide much-needed nutrients to a child's diet.  
PATH/Minzayar

## Fortified rice for Myanmar

With assistance from the Livelihoods and Food Security Trust Fund, PATH successfully launched fortified rice in Myanmar in 2013. Starting out in the populous Yangon and Ayeyarwady regions, the program has been scaling up to increase access to fortified rice throughout the country. The goal is to reduce micronutrient deficiencies in the population while also creating income-generating opportunities for supply chain and distribution actors.

## Public, private, and social sector partners

For PATH, strategic partnerships are a vital element of addressing critical health concerns globally. In Myanmar, PATH works with key multi sector partners:

- **The National Nutrition Centre in the Ministry of Health and Sports** is the lead public sector partner.
- **Local, private-sector companies** produce the fortified rice.
- **Population Services International** leads the consumer demand-generation efforts.
- **The Department of Social Welfare in the Ministry of Social Welfare, Relief and Resettlement** uses fortified rice in its schools' lunch programs.
- **The World Food Programme** is distributing fortified rice to vulnerable populations.

<sup>1</sup> Ministry of Health and Sports (MOHS) and ICF International. 2016. *Myanmar Demographic and Health Survey 2015-16: Key Indicators Report*. Nay Pyi Taw, Myanmar, and Rockville, Maryland, USA: Ministry of Health and Sports and ICF International

## Government support

The Myanmar Government recognizes the importance of nutrition in improving national health outcomes. The Ministry of Health and Sports, as well as other relevant bodies (e.g., Ministry of Social Welfare, Relief and Resettlement, Ministry of Agriculture, Livestock and Irrigation) support the introduction of fortified rice in Myanmar as a key solution to address widespread micronutrient deficiencies.

With technical assistance from PATH, the National Nutrition Centre chairs the Myanmar Rice Fortification Working Group, which includes public, social, and private-sector partners. Together, we are developing policy recommendations for rice fortification, which would ensure a supportive regulatory environment and effective quality standards.



Fortified rice grains rolling off the production line. PATH/Minzayar

## Supply chain and distribution channels

To support the growth of the fortified rice supply chain in Myanmar, PATH is providing technical assistance to actors across the value chain.

PATH works with fortified grain producers, blender-fabricators, rice millers and distributors to ensure the successful production and distribution of high-quality fortified rice. Acknowledging the investment made by PATH and partners to introduce and adhere to safety and hygiene standards, the Food and Drug Administration (FDA) of Myanmar has granted its approval to PATH's partners to introduce fortified rice to the country.



Students at the Sports and Physical Education Academy in Yangon line up to get their first taste of fortified rice. PSI/La Min Ko

Fortified rice is now available on the shelves of supermarkets and small retailers. Demand for the product is growing and fortified rice is now distributed through an increasingly diverse range of public- and social-sector channels. For example, fortified rice is used for meals in various schools for people living with disabilities, youths, women, and toddlers under the Department of Social Welfare, as well as in all hospitals and training institutes under the Ministry of Health and Sports. Consumers across all income levels are gaining access to fortified rice brands at local markets and public institutions.

## A foundation for lasting impact

People in Myanmar are among the highest rice consumers in the world, consuming more than 300 grams per day per person. Moving the population to a fortified version of this favorite staple food has enormous potential for improving health. By creating an aspirational and affordable product that people associate with healthy living, we are creating the ecosystem for a thriving private market while using social safety net programs to reach vulnerable populations. This sets the stage for a future in which all rice consumed throughout Myanmar is fortified, an achievement that would substantially reduce micronutrient deficiencies and improve the health of the nation.

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## Livelihoods and Food Security Trust Fund



[path.org](http://path.org)

PATH is a global organization that works to accelerate health equity by bringing together public institutions, businesses, social enterprises, and investors to solve the world's most pressing health challenges. With expertise in science, health, economics, technology, advocacy, and dozens of other specialties, PATH develops and scales solutions—including vaccines, drugs, devices, diagnostics, and innovative approaches to strengthening health systems worldwide.

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