

FORTIFYING THE FUTURE IN THE SOLOMON ISLANDS

Working with public, private, and civic partners, the Food Fortification Initiative facilitated the establishment of effective wheat flour and rice fortification programs that strengthen health and save lives.

Key Highlights

- With the support of the Australian Department of Trade and Foreign Affairs, FFI provided thorough training and support to millers and government personnel to ensure fortification was sustainable, effective, and country-owned.¹
- Program focus in the Solomon Islands was on improving monitoring practices for wheat flour fortification and developing a rice fortification program.¹
- Fortification of wheat and rice in the Solomon Islands reaches over 500,000 people.²
- Rice fortification costs millers less than 1% of the production cost.²
- Despite worldwide trade disruptions from COVID-19, the Solomon Islands successfully maintained import monitoring protocols for fortified rice, with 100% of imports fortified to the standards.¹

Micronutrient Deficiencies

Prior to fortification, the Solomon Islands experienced a heavy burden of micronutrient deficiencies:

- 15 neural tube defects per 10,000³
- 38% anemia in non-pregnant women of reproductive age⁴
- 38% anemia in pre-school children⁴
- 23.8% of population at risk for inadequate zinc intake⁵

While no post-fortification micronutrient surveys have been released, high compliance rates imply fortified foods are consistently reaching Solomon Islanders.

Fortification Landscape

Food vehicle ⁶	Legislation ⁶	Availability (grams/person/day) ⁶	% Industrially milled flour/rice that is fortified ⁶
Rice	Mandatory	138	100%
Wheat	Mandatory	47	
Salt	Mandatory	5.9	98%

[1] Food Fortification Initiative. [Solomon Islands celebrates strong compliance to fortification standards](#). 2022.

[2] Food Fortification Initiative. [2019 Annual Report](#).

[3] Hannah Blencowe, London School of Hygiene & Tropical Medicine. Personal communication. United Kingdom. 2015.

[4] World Health Organization, [Global Health Observatory](#). 2021 estimates.

[5] Wessells KR, Brown KH. [Estimating the global prevalence of zinc deficiency: results based on zinc availability in national food supplies and the prevalence of stunting](#). United States of America. 2012.

[6] Global Fortification Data Exchange. [Dashboard: Country Fortification](#).

Program Summary

From 2015 to 2021, the Food Fortification Initiative (FFI) provided technical assistance to the Government of the Solomon Islands, millers, and other partners to strengthen implementation of the country's mandatory wheat flour fortification legislation (established in 2010) and support the planning, implementation, and monitoring of mandatory rice fortification (established in 2018). FFI and partner efforts to build high-impact and self-sustaining fortification programs in the Solomon Islands were made possible by generous support of the Australia Department of Foreign Affairs and Trade.

Key activities included training and supporting the Solomon Islands Ministry of Health and Medical Services (MHMS) to implement audit and inspection requirements for wheat flour fortification, as well as promoting, justifying, and facilitating changes to legislation to introduce fortification of rice. These efforts were overwhelmingly successful; after implementation, monitoring assessments indicated that nearly all producers and importers complied with rice and wheat flour fortification standards.



Photo: Becky Tsang/FFI

Projected nutrient intake through fortification:

Micronutrient (food vehicle) ⁶	Potential Intake (mg/day) ⁶	Percentage of Tolerable Upper Intake Level (UL) ⁶
Folate (rice/wheat flour)	0.27	27.1
Iodine (salt)	0.15	24.7
Iron (rice/wheat flour)	12.42	27.6
Niacin (rice/wheat flour)	13.77	39.29
Riboflavin (wheat flour)	10% EAR	NA
Thiamin (rice/wheat flour)	1.09	NA
Zinc (rice/wheat flour)	8.59	21.5

Partnerships

The project was made possible by robust public, private, and civic sector partnerships. Partners included high-level Solomon Islands government officials from the following agencies:

- MHMS (Maternal and Child Health Division, Environment Health Division, Health Promotion Division, Public Health Laboratory, Non-Communicable Disease Division)
- Ministry of Agriculture and Livestock (Quarantine Division)
- Ministry of Finance and Treasury (Customs Division)

In addition, partnerships included senior representatives from:

- Delite Flour Mill
- Solomon Rice Company Ltd
- World Health Organization
- Australia Department of Foreign Affairs and Trade
- United Nations Children's Fund (UNICEF)

Program Timeline

2015

FII develops a comprehensive plan for Solomon Islands to implement the existing mandatory wheat flour fortification standard.

An analysis of cereal grain availability in the country suggests that rice fortification would also be key to reach the majority rice-eating population; amending national standards to require rice fortification also becomes a project objective.

2014

Australia's Department of Foreign Affairs and Trade (DFAT) asks FFI to guide Solomon Islands' leaders to address the country's significant nutritional needs through food fortification and provides a grant to support activities.

FFI facilitates the development of a memorandum of understanding between partners to establish a multi-sector Food Fortification National Committee to provide national coordination over the food fortification program.

FFI experts train wheat flour millers in quality assurance and quality control and food safety inspectors in wheat flour monitoring.

2016-2018

FFI assists the government in developing a proposed fortification standard for rice.

2018

FEBRUARY: FFI runs a rice fortification compliance and enforcement training workshop for regulators.

DECEMBER: Government enacts a mandatory standard for rice that requires fortification of rice with iron, zinc, folic acid, thiamin, and niacin. As nearly all industrially-produced rice in the country is imported, the standard applies to imported rice.

May 2019

Mandatory rice fortification standard becomes effective. A two-month grace period is provided to rice importers to implement.

June 2019

First shipment of fortified, imported rice arrives in Solomon Islands.

FFI assists in developing the import monitoring procedures to validate compliance of rice imports. FFI develops, tests, and trains regulators to use a rapid, qualitative test to monitor rice imports.

July 2019

FFI runs a follow-up compliance and enforcement training workshop for regulators.

August 2019

Solomon Islands rice fortification is in full effect, and government regulators begin to enforce requirements for rice imports.



Food Fortification Initiative

Enhancing Grains for Healthier Lives