



The Republic of Malawi  
Office of the President and Cabinet

# Addressing Micronutrient Malnutrition: Fortification Efforts in Malawi

Situation Assessment

May 2010



PROJECT HEALTHY CHILDREN

## Assessment Goals and Methodology

In April 2010, Project Healthy Children began working with the Office of President and Cabinet to conduct an assessment of national food fortification efforts.

- Goals

- To understand the context, capacity, and work to date around fortification and micronutrient malnutrition in Malawi
- To identify successes, challenges, and essential next steps required to achieve the goal of mandating several staple foods in the country to be fortified

- Methodology

- Data was collected from January to April 2010 through secondary research and interviews with government agencies, NGOs, and industry

## Micronutrient Malnutrition in Malawi

Numerous national surveys have consistently identified chronic and micronutrient malnutrition as issues from which many Malawians, particularly women and children, suffer.

Children under five <sup>1</sup>		
Stunted	Wasted	Underweight
60%	11%	4%

Vitamin A Deficiency <sup>2</sup>	Anemia <sup>3</sup>	Zinc Deficiency <sup>4</sup>	Folic Acid Deficiency <sup>5</sup>
60% for children under 5	73% for children 6-59 months	34% of the population	Contributes to 683 neural tube defects/year
57% for women of reproductive age	46% for women of reproductive age		

<sup>1</sup>Food Security and Vulnerability Analysis (2010)

<sup>2</sup>National Micronutrient Survey (2001) and Malawi MICS (2006)

<sup>3</sup>Malawi DHS (2004)

<sup>4</sup>VMD Damage Report (2009)

<sup>5</sup>March of Dimes, 2006

## National Strategies to Address Micronutrient Malnutrition

The urgent need to focus on nutrition is outlined in government strategies including the creation of a department in the Office of the President and Cabinet with the mandate to spearhead policies and provide strategic guidance around nutrition and HIV/AIDS.

Government Strategy	Nutrition Focus
Malawi's Vision 2020	Improving nutritional status identified as strategic challenge under Food Security and Nutrition
National Nutrition Policy and Strategic Plan (2007-2012)	Objective: To provide adequate nutrition for all Malawians by 2015
National Micronutrient Survey (2001, 2009)	To better understand Malawi's micronutrient situation and to serve as a baseline for monitoring
Malawi's Economic Growth and Development Strategy (MDGS) (2006)	Sixth pillar: Prevention and management of nutrition disorders and HIV/AIDS
Food Security Policy (2006)	To guarantee that all...have...physical and economic access to sufficient nutritious food required to lead a healthy & active life
National Plan of Action for Nutrition (2000)	To facilitate improvement of the nutritional status of all Malawians and to raise awareness on the magnitude of Malawi's nutrition problem
Millennium Development Goals (MDGs) for 2015	Addressing micronutrient malnutrition can be linked to all six of the MDGs

## Interventions to Address Micronutrient Malnutrition

The government has promoted dietary diversity and nutrition education based on the Malawi Six Food Groups<sup>1</sup> in addition to salt iodization legislation, supplementation, and child deworming programs.

Intervention	Result
1995 law requiring salt to be fortified with 80-100ppm iodine	<ul style="list-style-type: none"> <li>• 82% of households using iodized salt</li> <li>• Only 50% of salt is adequately iodized at 15ppm<sup>2</sup></li> </ul>
Vitamin A supplements twice yearly for children 6-59 months	<ul style="list-style-type: none"> <li>• 69% of children 6-59 months received vitamin A capsules in the past 6 months<sup>2</sup></li> </ul>
Vitamin A supplements for post-partum women	<ul style="list-style-type: none"> <li>• 46% of mothers 15-49 received vitamin A supplements within 8 weeks of the postnatal period<sup>2</sup></li> </ul>
Iron and folate supplementation for pregnant women at ANC and school-age children	<ul style="list-style-type: none"> <li>• While 18% of women with a birth in the prior five years reported taking iron supplements for the targeted 90+ days during pregnancy, 21% reported taking none at all during pregnancy<sup>3</sup></li> </ul>

<sup>1</sup>National Nutrition Policy and Strategic Plan (2007)

<sup>2</sup>Malawi MICS (2006)

<sup>3</sup>Malawi DHS (2004), MICS (2006)

## Food Production, Imports, and Exports

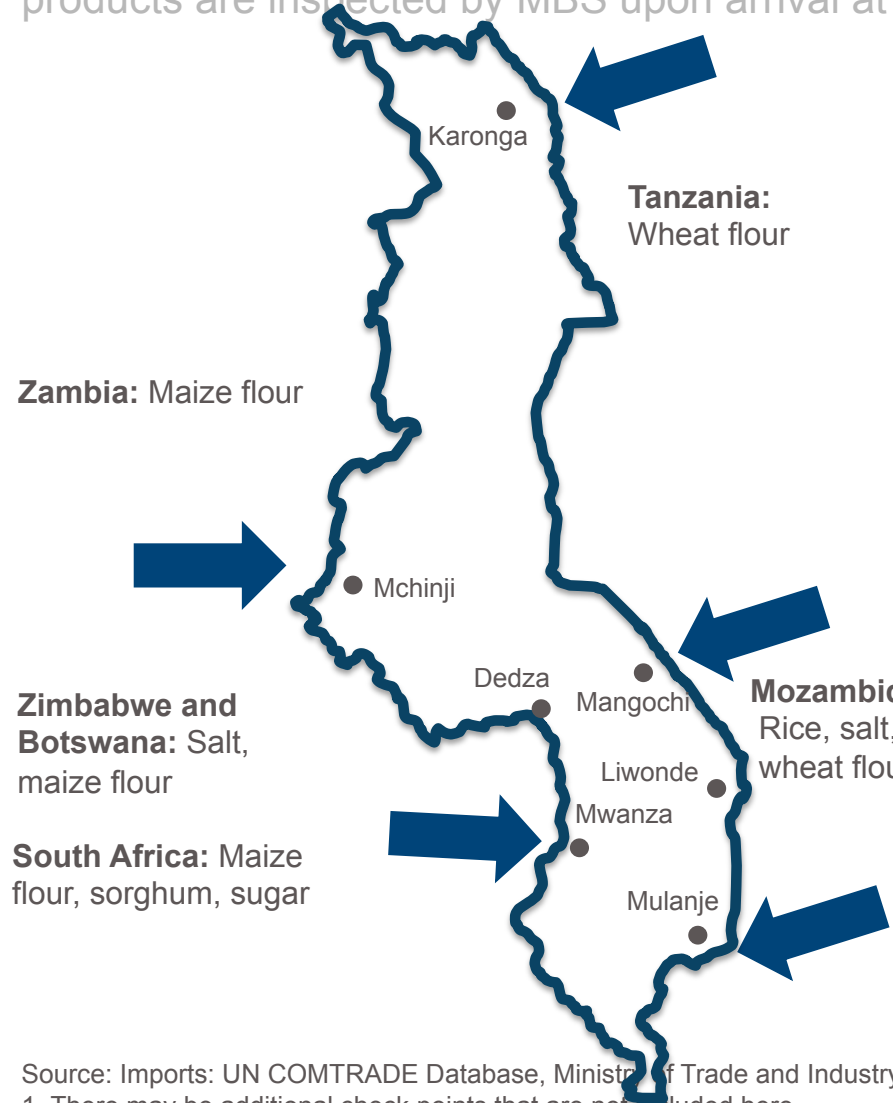
Data on local food production and trade was collected to understand the flow of staple food. Results reveal that a significant amount of the food consumed in Malawi is produced locally.

	Production	Imports	
	%	%	Sources
Rice	40	60	Mozambique (54%), Taiwan (15%), China (11%), Italy (6%), 22 others (14%)
Salt	0 <sup>1</sup>	100	Zimbabwe (51%), Mozambique (22%), Botswana (11%), South Africa (7%), Zambia (4%) 15 others (5%)
Sugar	<b>100</b>	~0	Minimal amounts (~48 MT) from South Africa, Tanzania
Oils	<b>67</b>	33	Kenya (a large proportion of crude oil is imported but refined in-country)
Maize Flour	<b>96</b>	4	USA (97%), South Africa (1%), Zambia (1%), Zimbabwe (0.1%), Tanzania (0.02%)
Wheat Flour	<b>98</b>	2	Turkey (57%), Tanzania (24%), Mozambique (12%), UK (5%), 3 others (2%)
Sorghum	<b>88</b>	12	South Africa (100%)

Sources: Local Production: Malawi Central Bank, Financial and Economic Review Volume 41 Number 1-2009 (except Wheat and Oil, from FAO ProdStat, 2007 data), Ministry of Agriculture and Food Security National Crop Estimates 2008/09, Rab Processors and Bakhresa for wheat and maize flour. Imports: UN COMTRADE Database, Ministry of Trade and Industry. Exports: Ministry of Agriculture and Food Security 2008/09.

## Imported Products

A small number of commonly imported products are also fortified. All imported staple food products are inspected by MBS upon arrival at one of five check points.<sup>1</sup>



It should be noted that the amount of imported maize flour is extremely small (~0.1% of all maize flour consumed in country is fortified).

### Fortified imported products include:

- Maize flour from South Africa
  - Vitamin A, B vitamins, iron, folic acid, zinc
- Maize flour from Zambia
  - Vitamin A, B vitamins, iron, zinc
- Maize flour from Zimbabwe
  - Vitamin A, B vitamins, iron, folic acid
- Oil from Kenya
  - Vitamin A
- Iodized salt from Zimbabwe and Mozambique (although iodization is not mandatory in Mozambique)

Source: Imports: UN COMTRADE Database, Ministry of Trade and Industry; Fortified products: ECSA regional data  
1. There may be additional check points that are not included here.

## National Fortification Efforts

Significant efforts have been made to date in Malawi to implement food fortification.

- Mandatory fortification standards were drafted in 2002 for salt, oil, sugar, maize and wheat flour
- A National Fortification Alliance (NFA) has been in existence since 2003
- A FRAT consumption survey was conducted in 2009 with support from UNICEF
- A national fortification plan has been drafted and numerous industry assessments completed as part of efforts for the submission of a GAIN grant
- Collaboration exists between industry, government and NGOs to fortify Illovo sugar with vitamin A
  - The majority of sugar consumed in Malawi is bought from Illovo
  - Illovo pilot fortification program conducted in 2008 to determine feasibility of fortifying sugar in Malawi followed by sensory, consumer awareness, trade limitations, and distribution pattern assessments
  - Technical assistance provided to industry
  - Government/NGO support provided for equipment and premix purchases for first two years of fortification
  - Budget drafted and approved with fortification slated to begin in September/October 2010



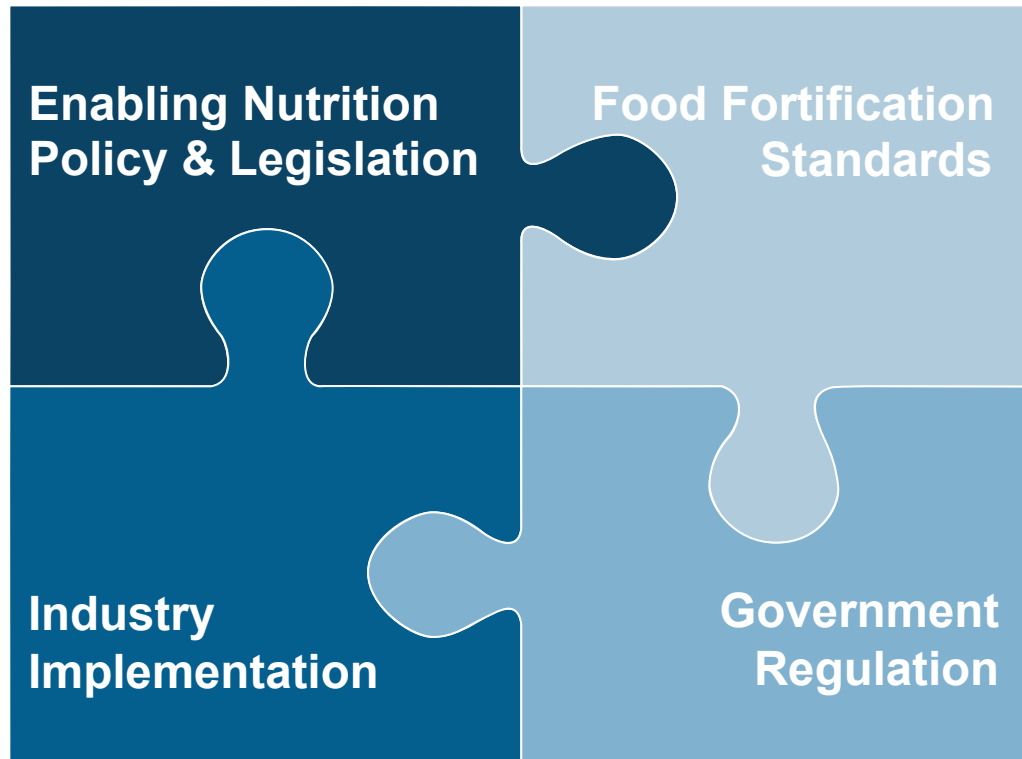
## Voluntary Fortification Efforts

A number of local producers have begun fortifying voluntarily, often in order to differentiate their products and gain a competitive advantage in the market.

- Fortification of vegetable oil with vitamin A since 2007
  - Capital Oil Refineries (CORI) (produces 60-70% of the country’s edible oil)
  - Unilever (contributes 90% of the branded oil on the market, brand name is Kazinga)
  - Oil and Protein Ltd (previously fortified “Super Star” oil with support from UNICEF but program stopped when sold to new management; efforts underway to initiate again)
- Fortified maize flour
  - RAB Processors
  - Bakhressa (for WFP)
- Fortified maize flour from hammer mills as part of a safety net program
  - World Vision MICAH project
- Fortified Corn Soy Blend (CSB)
  - RAB Processors (Likuni Phala)
  - Bakhressa (Likuni Phala)
  - Feed the Children (VitaMeal)
- On-site iodization of imported salt
  - RAB Processors
- Fortified peanut butter
  - RAB Processors (Sibusiso)

# Developing a National Fortification Program

In order to implement a sustainable fortification program, three steps must be taken to understand the four major program elements.



## Developing a National Fortification Program: Malawi Successes

A strong foundation and sound commitment from industry and government exist within Malawi upon which a national fortification program can be built. Progress to date includes:

### Enabling Policy & Legislation

- Identification of the need for a national fortification strategy

### Fortification Standards

- Identification of priority vehicles
- Standards drafted based on assessed consumption patterns, deficiency data, market dynamics, and trading patterns
- NFA established in 2003

### Industry Implementation

- Industry engaged to encourage participation (Illovo progress and voluntary fortification by other industry)
- QA/QC training provided to industry (ECSA guidelines in April 2008)
- Assistance in procurement of equipment and supplies

### Government Regulation

- QA/QC training (ECSA guidelines) provided to external monitoring personnel (MBS, MoH, OPC and Trade inspectors)

## Developing a National Fortification Program: Malawi Challenges

Despite the impressive progress to date, a number of gaps remain in order to implement a comprehensive and mandatory fortification program:

### Enabling Policy & Legislation

- Identify legislative structure whereby fortification standards can be incorporated mandating their adoption
- Allow MBS to define specific standards, monitor adherence and enforce regulations
- Draft a national fortification strategy

### Fortification Standards

- Review current standards in light of the 2009 consumption data and regional standards
- Strengthen current NFA structure including new TORs with defined roles and responsibilities for each member and more frequent meetings with appropriate resources

### Industry Implementation

- Establish strong communication with industry regarding fortification requirements and consequences of non-compliance

### Government Regulation

- Enforcement around established standards
- A comprehensive and standardized monitoring and reporting system identifying primary agency responsibilities
- Clarity on who has the primary responsibility for testing fortified products

## Recommended Next Steps

The following recommendations have been generated to build on the successes of current efforts and to move forward with a comprehensive National Fortification Strategy for Malawi.

- Assess NFA structure, reorganize as necessary and draft TORs for each participating agency
- Identify appropriate legislative structure whereby fortification standards could be incorporated and made mandatory
- Review current fortification standards based on consumption patterns from 2009 FRAT and based on regional standards and regulations
- Develop clear outline of which government agencies are responsible for fortified product monitoring and reporting and coordinate activities and reporting
- Clearly communicate national strategy with industry and importers on mandatory standards and consequences of non-compliance
- Create a comprehensive monitoring tool that pools inputs/data from MBS and public health inspectors into one reporting system
- Train industry and governmental agencies on QA/QC around fortification testing and monitoring
- Draft a national fortification strategy

## Malawi: 2010 Work Plan

PHC proposes a joint work plan in order to strengthen national fortification efforts to be led by the Office of the President and Cabinet subject to their agreement and the agreement of all involved individuals and agencies. The proposed activities include:

