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TECHNICAL SUPPORT PROJECT TO REDUCE MICRONUTRIENT DEFICIENCIES IN TAJIKISTAN:

**PROJECT COMPENDIUM
2014-2017**

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Contents

Hidden Hunger in the Republic of Tajikistan and Food Fortification.....	6
Wheat Flour Fortification in Tajikistan	7
About the Project.....	9
National Commitments and Policy Framework.....	10
Project Achievements	11
The Evidence Base and Project-supported Documents and Reports.....	12
Food Fortification Stakeholders	15
Conclusion and Recommendations for Future Programming.....	17
Global Resources on Food Fortification.....	20

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LIST OF ABBREVIATIONS

ADB	Asian Development Bank
BDR	Birth Defects Registry
CBA	Cost Benefit Analysis
CRF	Common Results Framework Children
CU5	under five
DRS	Districts of Republican Subordination Food
FFI	Fortification Initiative
FtF	Feed the Future
GAIN	Global Alliance for Improved Nutrition
GBAO	Gorno-Badakhshan Autonomous Region
GDP	Gross domestic product
GoT	Government of Tajikistan National
NDS	Development Strategy Iron
IDA	Deficiencies Anemia National
NEA	Fortification Alliance Millennium
MDG	Development Goals
MHSP	Ministry of Health and Social Protection of the Population
QA/QC	Quality assurance and quality control
SDG	Sustainable Development Goals
SES	State Center for Sanitary and Epidemiological Service
SUN	Scaling Up Nutrition
TABioS	Public Association Tajikistan Association for Biological Security
US	United States
USAID	United States Agency for International Development
USG	United States Government
WFP	World Food Programme

The Global Alliance for Improved Nutrition (GAIN) implemented the Tajikistan Technical Support Project to Reduce Micronutrient Deficiencies with financial support from the United States Agency for International Development (USAID) from October 2014 to December 2017. The project's goal was to improve nutrition for vulnerable women and children in Tajikistan. This document provides resources and references to support the establishment of a sustainable food fortification program in Tajikistan that leads to improved health outcomes. The document summarizes results to date and gathers documents and tools developed during the life of the project so that policymakers, government officials, international and local organizations and other stakeholders in Tajikistan can easily access and use the information generated by the project in future food fortification programming. It also provides details on project partners and contributors to help identify stakeholders and champions of food fortification.



Hidden Hunger in the Republic of Tajikistan and Food Fortification

Micronutrients are critical to an individual's health and development. Micronutrient deficiency, also known as "hidden hunger," occurs when the quality and diversity of food consumed does not provide the vitamins and minerals required

for growth and development. Many diets, especially those of the poor, contain insufficient amounts of vitamins and minerals due to lack of variety of fresh fruits and vegetables, inconsistent food supply, and

over-consumption of staple or processed foods. The impact of micronutrient deficiencies is felt most acutely among children, as malnourishment in the first two years of life creates irreversible damage to physical and cognitive

development. Micronutrient deficiencies among pregnant women contribute to lower birth weights, maternal and infant morbidity and mortality, and higher rates of birth defects. While potentially devastating at the individual and household level, micronutrient deficiencies also affect the well-being of communities and the economic performance of entire nations across generations. Losses due to lower productivity, poor cognitive development, reduced educational achievement, and the heavy burden on already-stretched health care systems can reduce gross domestic product¹ as much as three percent.

Micronutrient deficiencies are a major public health problem in Tajikistan. A 2009 national micronutrient survey found widespread deficiencies; almost one-quarter of women of reproductive age and 29 percent of children under five (CU5) suffer from anaemia. More than 10 percent of CU5 are wasted and/or underweight, and more than a quarter are stunted. Folate deficiency in women is also common in Tajikistan; women with folate deficiency are more likely to give birth to children with neural tube defects, the most common of which is spina bifida. A 2016 cost-benefit analysis calculated

that losses to Tajikistan from death, disease and lost productivity from malnutrition could total US\$878 million by 2026.² Food fortification, adding vitamins and minerals to staple foods and widely consumed condiments to prevent nutritional deficiencies, is one of the least expensive and most effective nutrition interventions to tackle hidden hunger on a large scale. Fortification of staple foods like flour, salt, and oil makes these foods more nutritious without relying on consumers to change their habits. Once an initial capital investment is made, recurring costs for fortification can be as low as five cents per person per year.³

1 Global Panel on Agriculture and Food Systems for Nutrition, Technical Brief No.3, The Cost of Malnutrition: Why Policy Action is Urgent, July 2016, <https://www.glopan.org/cost-of-malnutrition>, Accessed February 27, 2018

2 Ghauri, May 2016 Analysis of Economic Losses in Tajikistan, http://www.gainhealth.org/wp-content/uploads/2016/06/AnalysisofEconomicLosses-TajikistanFullReport_FINAL-English.pdf Accessed February 27, 2018

3 Horton, Alderman and Rivera 2008. Hunger and Malnutrition in Global Crises, Global Solutions, Cambridge University Press, http://www.copenhagenconsensus.com/sites/default/files/cp_hungerandmalnutritioncc08vol2.pdf, Accessed February 27, 2018

Wheat Flour Fortification in Tajikistan

From 2002 to 2007, the Asian Development Bank (ADB) funded wheat flour fortification programming. The project aimed to reduce iodine deficiency disorders and iron deficiency anaemia. Achievements included establishing a National Salt Producers and Flour Millers' Association, procuring fortification equipment, training and providing technical assistance to large flour mills, drafting a law mandating flour fortification, establishing the premix formulation, and establishing standards on fortified wheat flour and bakery products. During the project, voluntary flour fortification began. However,

Despite numerous efforts to introduce wheat flour fortification in Tajikistan, there is no mandatory fortification of wheat flour nor a national flour fortification program. Currently, the only wheat flour in Tajikistan fortified for consumption is supplied by World Food Programme (WFP) for its school feeding programs to as many as 370,000 schoolchildren.¹

1 WFP Tajikistan website, <http://www1.wfp.org/countries/tajikistan> Accessed February 27, 2018.

Lacking legislation requiring fortification, voluntary fortification did not go to scale and stopped soon after ADB support ended. In October 2013, USAID/Tajikistan commissioned GAIN to assess the wheat sector and consumption of wheat-based products in Tajikistan and identify opportunities for strengthening flour fortification with micronutrients. Findings from the assessment¹ concluded that wheat flour provides about 70 percent of daily energy requirements in Tajikistan—one of the highest per capita flour intakes in the world. Eighty-five percent of wheat flour is produced domestically in the north of the country with grain imported from Kazakhstan. There are about 50 large-scale mills; half are

privately owned, half are administered by the Agency for Materials Reserves under the Government of Tajikistan. The assessment concluded that predominance of wheat flour in the Tajik diet and the large-scale production capacity of the milling sector make fortification a potentially high-impact intervention to improve nutrition in Tajikistan. Based on these conclusions, USAID provided financial support to GAIN to establish a sustainable, national wheat flour fortification program to improve nutrition for vulnerable women and children in Tajikistan.

¹ David McKee. May 2014. Tajikistan Wheat Flour Fortification Assessment. <http://www.gainhealth.org/wp-content/uploads/2014/07/Assessment-of-Fortification-Opportunities-in-Tajikistan-ENG.pdf> Accessed February 9, 2018.



Photo by US Embassy in Tajikistan



ABOUT THE PROJECT

The USAID Tajikistan Technical Support Project to Reduce Micronutrient Deficiencies was implemented by the Global Alliance for Improved Nutrition (GAIN) from October 2014 to December 2017. The 27-month project aimed to improve nutrition for vulnerable women and children in Tajikistan by:

- ☑ Providing evidence to support the passage and implementation of mandatory food fortification legislation and policies, with a focus on wheat flour fortification;
- ☑ Supporting government leadership to organize national forums that position nutrition as a high priority on the national development agenda;
- ☑ Revising national wheat flour fortification standards to align with regional standards;
- ☑ Using a multi-sectoral approach to build awareness around and support to nutrition, micronutrient deficiencies and food fortification;
- ☑ Strengthening capacity of food control agencies to monitor and enforce food safety and quality regulations, especially for wheat flour fortification;
- ☑ Strengthening capacity of private sector to fortify wheat flour.

The project contributed to the achievement of targets set by the government for: Sustainable Development Goals; World Health Assembly Targets 2025; Scaling Up Nutrition's Common Results Framework (CRF) for Tajikistan; National Development Strategy of the Republic of Tajikistan 2030; Nutrition and Physical Activity Strategy for 2015- 2020; National Program for the Formation of a Healthy Lifestyle for 2011-2020; and the National Health Strategy of the Republic of Tajikistan 2010-2020.

National Commitments and Policy Framework

The Government of Tajikistan has made numerous commitments to improving nutrition. Moreover, national strategies that address development, health, and nutrition highlight reducing micronutrient deficiencies and promoting food fortification as priority interventions. These guiding documents articulate government priorities and targets for nutrition and demonstrate a policy framework that is favourable to fortification efforts.

The Medium-term Development Program of the Republic of Tajikistan 2016-2020, approved by the Decree of Parliament of the Republic of Tajikistan on December 28, 2016, focuses on improving nutrition by eliminating nutritional deficiencies in iodine, iron, and vitamin A.

In 2016, Tajikistan developed and adopted the National Development Strategy 2030 (NDS- 2030), which sets a long-term development goal for Tajikistan to improve the living standards and well-being of the population within the framework of the Sustainable Development Goals (SDGs). One of Tajikistan's strategies is to ensure food security and access of population to quality nutrition. Specific targets include reducing stunting in CU5 17.4 percent by 2022, maintaining levels of CU5 malnutrition below 5 percent, and reducing micronutrient deficiency in CU5 and women 15-49 years of age.

The strategy of improved nutrition and increased physical activity in the Republic of Tajikistan for 2015-2024, approved by the Decree of the Government of the Republic of Tajikistan on December 31, 2014, aims to significantly reduce the incidence of malnutrition, micronutrient deficiency, obesity, and other nutritional non-communicable diseases by 2024.

The National Health Strategy of the Republic of Tajikistan 2010-2020, approved by the Decree of the Government of the Republic of Tajikistan on August 2, 2010, No.

368, includes deworming and treatment for severe and acute malnutrition among key clinical services. The strategy also prioritizes the prevention and treatment of micronutrient deficiency disorders, with an emphasis on iodine deficiencies and monitoring compliance with mandatory salt iodization.

Tajikistan joined the global Scaling Up Nutrition (SUN) movement in 2013 and committed to mobilizing a multi-sector response to malnutrition that will allow every child and adult to realize their right to food and nutrition, reach their full potential, and shape a sustainable and prosperous Tajikistan.

Project Achievements

Tajikistan Technical Support Project to Reduce Micronutrient Deficiencies worked to create an enabling environment for a national food fortification program, leveraged market forces of supply and demand, built industry capacity to ensure food quality, and bolstered government capacity to monitor and enforce compliance with food safety laws. Table 1 summarizes the project's main objectives, activities and results.

Table 1. Project's Main Objectives, Activities and Results

Project Component	Activities	Outcomes
POLICY & ADVOCACY	<ul style="list-style-type: none"> • Provided technical assistance to the Government of Tajikistan to review and rework the draft wheat flour fortification law. • Supported the SUN country multi-sectorial platform and provide technical assistance to engage local businesses and private sector and facilitate public-private dialogue for improving the nutritional status of the population. • National champions on food fortification were identified and actively engaged. • Engaged affected and influence groups such as parents of children with spina bifida, neurosurgeons, paediatricians, media and academia. • Organized a study tour to USA to learn about good systems for food fortification. • Developed National Action Plan for Wheat Flour Fortification. • Supported establishment of SUN Business Network in Tajikistan and raised champions. 	<ul style="list-style-type: none"> • Draft legislation on mandatory food fortification submitted to the Parliament and relevant ministries. • Adoption of the legislation on food fortification included in the country SUN Common Result Framework (CRF) as one of the targets. • More than 50 champions on food fortification actively engaged. • National Action Plan provides a roadmap for establishing wheat flour fortification program. • More than 100 journalists and reporters know about micronutrient deficiencies and food fortification and produced media products with coverage of 1.5 million.
PRODUCTION & SUPPLY	<ul style="list-style-type: none"> • Conducted in-depth milling industry assessment. • Provided technical assistance to wheat flour millers to commence fortification and comply with standards. 	<ul style="list-style-type: none"> • In-depth milling industry assessment conducted that increased government officials' understanding that wheat flour fortification is possible in Tajikistan. • 90% of mills trained on fortification methods including QA/QC.
QUALITY	<ul style="list-style-type: none"> • Conducted assessment of food laboratories. • Strengthened capacities of food control authorities to monitor fortification standards. • Strengthened capacity of the National Food Fortification Alliance under the Coordination Council on Food Safety. • Organized a study tour to Kazakhstan. 	<ul style="list-style-type: none"> • The Government received information on the degree of readiness of laboratories to test fortifications. • Capacity of laboratories of Tajikstandard agency enhanced to test fortificants. • Regulatory agencies and control authorities on food fortification are trained on QA/QC. • National Fortification Alliance is established. • Members of the Coordination Council on Food Safety/NFA trained on food fortification and regional global best practice on fortification.
DEMAND	<ul style="list-style-type: none"> • Built government capacity to raise awareness among the population on the benefits of iron and folic acid available in fortified wheat flour. • Provided training for the MHSPP communication officers on creating media messages about anemia and micronutrient deficiencies. • Developed media materials on anemia and micronutrient deficiencies. 	<ul style="list-style-type: none"> • MHSPP communicates on anemia and micronutrient deficiencies and create media products and messages. • Communication and public awareness materials developed.
MONITORING	<ul style="list-style-type: none"> • Established national electronic birth defects registry (BDR) and presented progress achieved in creation of the birth defects registry to the Government of Tajikistan and other stakeholders. • Provided trainings to the medical statisticians on the proper usage of the BDR. • Provided technical assistance to the MHSPP in monitoring and knowledge sharing to guide programming. 	<ul style="list-style-type: none"> • MHSPP's national electronic BDR registers and monitors 100 types of birth malformations published in the Annual Statistical Book. • MHSPP national and sub-national structures properly report on the neural tube defects (NTD) via national registry.

The Evidence Base and Project-supported Documents and Reports

Project-supported research, studies, assessments, and analyses offer evidence for advocacy and guidance for establishing a sustainable food fortification program in Tajikistan. For instance, GAIN's cost-benefit analysis proved an effective advocacy tool by quantifying the economic costs of micronutrient deficiencies to Tajikistan, and making the investment case for a national food fortification program.

Tajikistan Wheat Flour Fortification Assessment (2014)

This assessment of the wheat sector in Tajikistan identified that wheat flour as an ideal vehicle for fortification with critical micronutrients such as iron and folate. The assessment also found positive trends in overall production and imports and consumption trends, and determined millers and public health officials had knowledge and experience to launch a flour fortification programme.

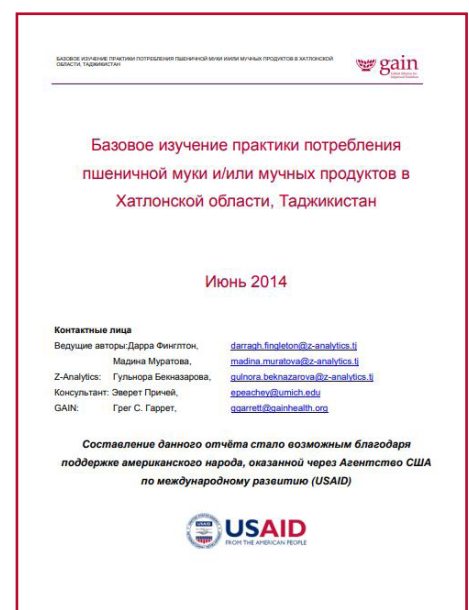
<http://www.gainhealth.org/wp-content/uploads/2014/07/Assessment-of-Fortification-Opportunities-in-Tajikistan-ENG.pdf>



Formative Research: Consumption of Wheat Flour and/or Cereal-based Products in Khatlon Province (2014)

This research provides an overview of the knowledge of nutrition, diet, and health issues of households and communities and the daily practices of families and school age children. Khatlon Province is home to the poorest health outcomes and the highest rates of malnutrition in Tajikistan. The report also analysed the business and policy environment for micronutrient fortification of staple foods including wheat flour. The research found no awareness of fortified flour and its benefits among consumers or producers, but no resistance to the idea.

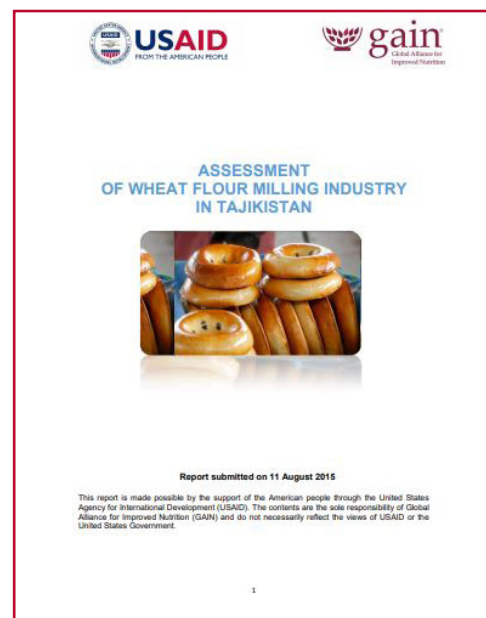
<http://www.gainhealth.org/wp-content/uploads/2014/07/Z-Analytics-Formative-research-Khatlon-Province-2014-ENG.pdf>



Assessment of Wheat Flour Milling Industry in Tajikistan (2015)

This assessment examined the wheat flour milling industry in Tajikistan, looking at flour production trends, availability, and sales of fortified wheat flour. The report also identified gaps and challenges faced by the milling industry for future fortification efforts; and recommended strategies to enact and implement legislation to enhance flour fortification.

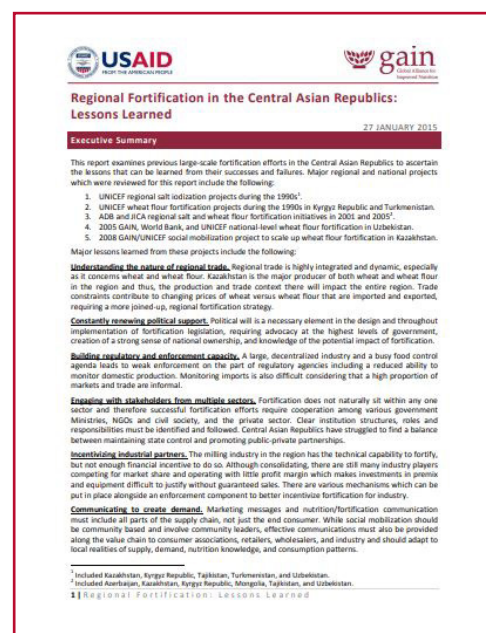
<http://www.gainhealth.org/wp-content/uploads/2014/07/Wheat-Flour-Milling-Industry-Assessment-Report-ENG.pdf>



Regional fortification in the Central Asian Republics: Lessons Learned (2015)

This multi-country study summarizes the successes and failures of previous large-scale fortification efforts in the Central Asian Republics.

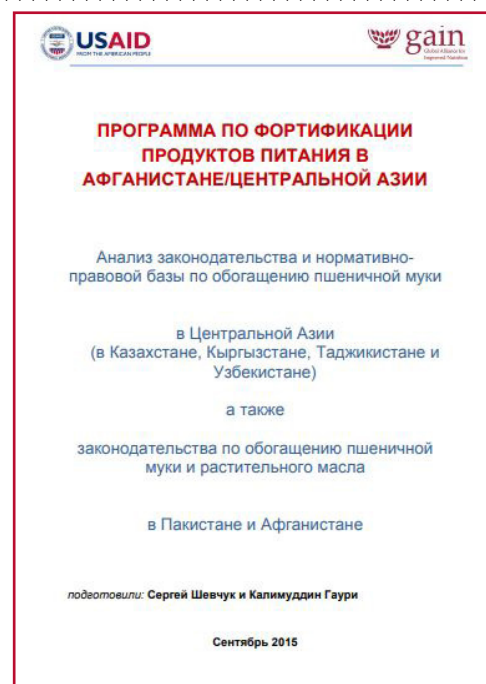
<http://www.gainhealth.org/wp-content/uploads/2014/07/Summary-of-Lessons-Learned-in-the-Central-Asia-Republics-ENG1.pdf>



Analysis of Wheat Flour Fortification Legislation and Policy in Central Asian Republics, Wheat Flour and Edible Oil Fortification Legislation and Policy in Afghanistan and Pakistan (2015)

This legislation and policy analysis assessed existing normative and legislative bases for food fortification and reviewed laws and policies on wheat flour fortification in Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Afghanistan and Pakistan.

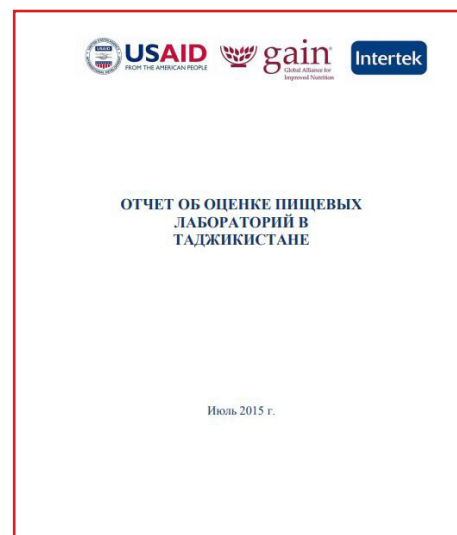
<http://www.gainhealth.org/wp-content/uploads/2014/07/Analysis-of-Food-Fortification-in-CAR-Afghanistan-and-Pakistan-ENG.pdf>



Report on Assessment of Food Laboratories in Tajikistan (2015)

This preliminary assessment looked at current national laboratory capacity in Tajikistan and determined what would be needed to establish and implement national monitoring and compliance programs.

<http://www.gainhealth.org/wp-content/uploads/2014/07/Tajikistan-Laboratory-Assessment-Report-ENG.pdf>



Cost Benefit Analysis for Wheat Flour Fortification (2016)

At the request of the Government of Tajikistan, GAIN conducted a cost-benefit analysis to calculate the cost effectiveness of food fortification in tackling micronutrient deficiencies, such as iron and folic acid deficiencies. The analysis projected that doing nothing to address micronutrient deficiencies would cost Tajikistan US\$878 million over 10 years in lost productivity, morbidity and mortality. The analysis went on to calculate that fortifying premium and first grade wheat flour with iron and folic acid would reduce these losses by US\$302M. The analysis estimated that national wheat flour fortification program to cost US\$32 million over 10 years, generating a 9:1 return on investment.

http://www.gainhealth.org/wp-content/uploads/2016/06/AnalysisofEconomicLosses-TajikistanFullReport_FINAL-English.pdf



National Food Regulatory Monitoring and Enforcement System Assessment (February 2017)

GAIN conducted this assessment of the national food regulatory monitoring and enforcement system in Tajikistan to strengthen capacities of food control authorities to monitor fortification standards.

Not published. Please contact info@gainhealth.org to request a copy.

Food Fortification Stakeholders

Partners	Description and role
Public Sector and Government Stakeholders	
Lower Chamber of Parliament, i.e. Majlisi Namoyandagon of Majlisi Oli	<ul style="list-style-type: none"> Representative and legislative body that drafts and approves legislation, including mandatory food fortification.
Ministry of Health and Social Protection of the Population	<ul style="list-style-type: none"> Primary government partner for fortification and nutrition efforts. Drafted mandatory wheat flour fortification legislation in 2016.
Republican Center for Medical Statistics and Information	<ul style="list-style-type: none"> MHSPP center that compiles medical statistics and information for government. Oversaw development and use of the national birth defects registry, and trained statisticians to use registry.
Republican Centre of Healthy Lifestyle Formation	<ul style="list-style-type: none"> MHSPP Department that promotes healthy life-style and provision of health and nutrition messages. Provided workshops for media and conducted focus groups with parents of children with spina bifida.
National Fortification Alliance (NFA)	<ul style="list-style-type: none"> Officially established under the Coordination Council of Food Safety. Coordinates food fortification initiatives in the country.
State Sanitary Epidemiological Surveillance Services	<ul style="list-style-type: none"> Regulatory agency under MHSPP responsible for food safety and quality through cadre of inspectors who work in food production sites and marketplaces.
Tajikstandard Agency	<ul style="list-style-type: none"> Government regulatory agency that sets standards and measures. Trained laboratory staff and food inspectors.
Local Civil Society	
Academy of Science	<ul style="list-style-type: none"> Non-profit organization of the country's leading researchers, which provides objective, science-based advice on critical issues affecting the nation. Organized a seminar for young scientists on food fortification and opportunities for research.
Association of Paediatricians	<ul style="list-style-type: none"> Professional association that supported establishment of national birth defects registry and development of National Action Plan for Wheat Flour Fortification.
Independent School of Journalism "Tajikistan 21 st Century"	<ul style="list-style-type: none"> Independent training institution for media and journalism that trained journalists to report on nutrition and food fortification.
Tajik Association for Biological Security (TABioS)	<ul style="list-style-type: none"> Parastatal organization that trained laboratory staff and food inspectors on quality assurance and quality control for wheat flour fortification, and organized seminar on food fortification for milles.

Private Sector	
Chamber of Commerce and Industry of the Republic of Tajikistan	<ul style="list-style-type: none"> ▪ Umbrella organization for private sector businesses. ▪ Explored establishing a Scaling Up Nutrition Business Network (SBN) in Tajikistan and drafted a SBN strategy.
Intertek, Germany	<ul style="list-style-type: none"> ▪ Private company based in Germany that provides innovative assurance, testing, inspection and certification service. ▪ Provided laboratory and regulatory enforcement and monitoring assessments.
Intertech, USA	<ul style="list-style-type: none"> ▪ Company that engineers solutions for the automotive, medical and industrial device markets. ▪ Provided laboratory equipment for testing iron.
Voltaprom, Russia	<ul style="list-style-type: none"> ▪ Company based in Russia that specialises in laboratory equipment. ▪ Provided laboratory equipment.
Development Partners	
International Federation for Spina Bifida and Hydrocephalus	<ul style="list-style-type: none"> ▪ International partner organization based in Belgium that promotes folic acid to prevent birth defects and supports care for families affected by NTD birth defects. ▪ Visited Tajikistan and conducted seminars for neurosurgeons and families affected by NTD.
Feed the Future Tajikistan Health and Nutrition Program	<ul style="list-style-type: none"> ▪ USAID project implemented by IntraHealth that provides maternal, new-born and child health care, with an emphasis on nutrition, sanitation, and hygiene. ▪ Co-facilitated the media training.
Food Fortification Initiative, USA	<ul style="list-style-type: none"> ▪ International NGO that promotes food fortification. ▪ Co-organized a study tour to US for high-level Tajik delegation to support mandatory fortification legislation.

Conclusion and Recommendations for Future Programming

The project achieved many results but there is still much to be done. GAIN's experience in Tajikistan reflects its experience in 20 other countries—that building a sustainable national fortification program including mandatory fortification legislation takes three to four years—and success requires a combination of quick wins, continuous improvement, and adaptability to respond to events. The components of a wheat flour fortification program in Tajikistan are still being built and will require further support to ensure success. Continued efforts should prioritize passage of the mandatory fortification legislation, support to industry to ensure compliance, and ensuring the government has capacity to monitor and enforce its regulations and standards. The reflections and recommendations below are based on the discussions with food fortification stakeholders, implementation experience, and outcomes from the project workshops and trainings.

1. ALIGNING PROJECT OBJECTIVES, ACTIVITIES AND MESSAGES WITH GOVERNMENT STRATEGIES BUILDS POLITICAL COMMITMENT

Food fortification was already incorporated into national strategies and policies such as National Development Strategy of the Republic of Tajikistan 2030, Nutrition and Physical Activity Strategy for 2015-2024, National Program for the Formation of a Healthy Lifestyle for 2011-2020, and the National Health Strategy of the Republic of Tajikistan 2010-2020. The project leveraged these existing commitments to promote the fortification agenda aligning communication and advocacy to highlight how fortification would contribute to current commitments and national development targets. This approach secured government support for the project activities and should be the basis for future advocacy efforts.

PRIORITY TASK:

- Refer to government commitments and policies that promote fortification in advocacy and awareness-raising efforts at national and sub-national levels.

2. ECONOMIC BENEFITS OF WHEAT FLOUR FORTIFICATION ARE COMPELLING, BUT RESISTANCE PERSISTS

The cost-benefit analysis (CBA) helped government understand impact and cost-effectiveness of investment in food fortification and proved to be an excellent advocacy tool, promoting interest in mandatory food fortification, and providing government officials with data that projected the losses and impact associated with micronutrient deficiencies. The CBA caught the attention of high-ranking political figures, like the Deputy Speaker of Lower Chamber of Parliament, who have become champions within government to promote legislative action. Despite these efforts, the flour milling lobby continues to argue that the cost of fortification equipment and consumables will increase prices and reduce the industry's competitiveness in internal market and against imports. As the price of wheat flour is politically sensitive, the government is reticent to increase flour prices—even for a good reason—so these arguments have effectively blocked previous legislation and are slowing current efforts. Proactively engaging government to build relationships of trust with flour millers and producers can mitigate industry opposition to the mandatory legislation.

PRIORITY TASK:

- Develop a strategy to engage mill owners in planning and implementation of the national food fortification program.

3. INDUSTRY NEEDS SUPPORT TO BEGIN FORTIFYING

Industry will need support to be able to comply, and many millers do not adhere to best practices in food safety and quality. Training in quality control and assurance and support to develop QA/QC systems (like procedures manuals and testing) is needed. Creation of industry associations can also create a platform for training and capacity building, information exchange, and bulk purchasing/procurement of premix to ensure producers' ability to comply with fortification regulations.

PRIORITY TASKS:

- Support creation of the Association of Tajik Millers.
- Develop manuals for milling companies on technology of production fortified wheat flour.
- Establish system for procurement of fortificants.

4. COSTS OF FORTIFICATION CAN BE REDUCED THROUGH GOVERNMENT ACTION

The cost of fortificants (also known as premix) is the largest recurring cost for producers. Exempting fortification inputs from taxes greatly reduces the costs to producers and makes voluntary fortification more attractive. In Pakistan, cost studies determined that tariffs, taxes and customs on premix represented almost 60 percent of the cost of fortification, so they exempted these inputs from taxes, thereby lowering the production cost and retail price for fortified flour. The Pakistani government is now reviewing exemption for fortification equipment. Afghanistan has also reduced their tariffs from 32% to 2%.

PRIORITY TASKS:

- Advocate for reducing/exempting import taxes and duties for premix and fortification equipment.

5. FOOD FORTIFICATION MUST ENGAGE MANY STAKEHOLDERS WITH DIFFERENT PRIORITIES AND WAYS OF WORKING, WHICH REQUIRES A ROBUST ADVOCACY STRATEGY TO GENERATE INTEREST AND DEMAND.

Food fortification cuts across market forces (supply and demand) and technical sectors, and requires action from government, private sector, and civil society. Bringing actors together is challenging, given different and sometimes competing interests. The failure to pass mandatory fortification in 2016 highlighted the need to advocate with the private sector and to pro-actively address concerns that may block progress.

Engaging influential politicians and government officials is important to garner support for advancing food fortification. Building awareness and demand through media proved an effective way to share nutrition related messages to the general public, but it may not be enough to spur legislative action. Targeting media outlets that have high readership among the ruling party did pique interest among politicians and technocrats, based on feedback from the journalists.

PRIORITY TASK:

- Continue engaging media, academia and other sectors to support food fortification legislation and its implementation.

6. SUCCESSFUL FORTIFICATION PROGRAMS REQUIRE ENACTMENT AND ENFORCEMENT

Once food fortification is mandatory, the government should lead the creation of by-laws, regulations, updating standards and protocols and approving the National Plan for Wheat Flour Fortification. Advocacy efforts at the sub-national level of government, especially in regions where flour milling takes place, should build compliance capacity in mills and enforcement among regulatory agencies. This requires ensuring laboratories have adequate equipment and supplies like reagents.

PRIORITY TASK:

- Support the process of enactment of food fortification legislation and creation and approval of other by-laws.

7. FORTIFICATION EFFORTS MUST INCLUDE A FRAMEWORK TO CAPTURE COVERAGE, ACCESS AND QUALITY.

When the national fortification program is established, indicators and measures should be integrated into surveillance systems. Methodologies like GAIN's Fortification Assessment Coverage Tool (FACT) survey can evaluate the effectiveness of large-scale food fortification programs, and understand whether those at high risk of micronutrient deficiency receive a meaningful micronutrient contribution from fortified foods.

PRIORITY TASK:

- Develop monitoring and evaluation system for measuring effectiveness of the food fortification program.

There is strong evidence that wheat flour fortification would be an excellent investment to improve the health of Tajik people and contribute to development of the nation's economy. Stakeholders should seize the momentum and advance the fortification agenda. To ensure long-term success, fortification requires government leadership, private sector engagement, and continued support from development partners.

Global Resources on Food Fortification

FORTIFICATION GUIDELINES

- WHO & FAO guidelines on food fortification with micronutrients (2006)
http://www.who.int/nutrition/publications/guide_food_fortification_micronutrients.pdf
- WHO recommendations for wheat and maize flour fortification (2009)
http://www.who.int/nutrition/publications/micronutrients/wheat_maize_fortification/en/
- WHO recommendations for maize flour fortification (2016) <http://w.who.int/nutrition/publications/micronutrients/guidelines/maize-corn-fortification/en/>
- WHO recommendations for salt fortification (2014)
http://apps.who.int/iris/bitstream/10665/136908/1/9789241507929_eng.pdf

BACKGROUND AND ADVOCACY ON FORTIFICATION

- GAIN for general information and good practices on fortification
- Food Fortification Initiative (FFI) for general information and good practices specific to fortification of cereal grains
- Iodine Global Network (IGN) for general information and good practices specific to salt iodization
- Global Fortification Data Exchange for up-to-date data, information, and good practices on fortification worldwide
- Global Mapping on Food Fortification (2016) https://ec.europa.eu/europeaid/food-fortification-global-mapping-study-2016_en
- Arusha Statement on Food Fortification, following the #FutureFortified Global Summit on Food Fortification (2015).
<https://www.gainhealth.org/wp-content/uploads/#FuteFteirusha-Statement.pdf>
- Sight and Life Supplement detailing the proceedings and recommendations from the #FutureFortified Global Summit on Food Fortification (2016). <http://www.gainhealth.org/wp-content/uploads/2016/07/FutureFortifiedSupplement-6-July-2016.pdf>
- Second Copenhagen Consensus: Micronutrient Fortification Best Practice (2008)
<http://www.copenhagenconsensus.com/publication/second-copenhagen-consensus-micronutrient-fortification-best-practice-horton-et-al>
- Third Copenhagen Consensus: Challenge Paper on Hunger and Malnutrition (2012)
<http://www.copenhagenconsensus.com/sites/default/files/hungerandmalnutrition.pdf>

EVIDENCE OF FORTIFICATION'S IMPACT

- Pachón H et al. Evidence of the effectiveness of flour fortification programs on iron status and anemia: a systematic review. *Nutr Rev.* 2015 Nov;73(11):780-95. <https://academic.oup.com/nutritionreviews/article/73/11/780/1923096>
- Blencowe H et al. Folic acid to reduce neonatal mortality from neural tube disorders. *International Journal of Epidemiology.* April 2010 (suppl_1):i110-i121. https://academic.oup.com/ije/article/39/suppl_1/i110/702000
- Castillo-Lancellotti C, Tur JA, Uauy R. Impact of folic acid fortification of flour on neural tube defects: a systematic review. *Public Health Nutr.* 2013 May;16(5):901-11. doi: 10.1017/S1368980012003576. Review. Erratum in: *Public Health Nutr.* 2013 Aug;16(8):1527. <https://www.cambridge.org/core/journals/public-health-nutrition/article/impact-of-folic-acid-fortification-of-flour-on-neural-tube-defects-a-systematic-review/EE00B553A9BD987BADF495BE3CCF6C>



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About USAID

USAID partners with the people of Tajikistan to increase food security, improve health and nutrition, strengthen basic education and enhance good governance. The U.S. Government's Feed the Future initiative addresses food insecurity by improving agricultural production and profitability as well as nutrition outcomes for mothers and their children. USAID also works to strengthen civil society and local governance, supports implementation of national education and health strategies, and prevents and treats TB and HIV. In the energy sector, USAID promotes closer economic integration among the Central Asian Republics and between Central and South Asia by helping to create an economically competitive regional energy market that will increase access to and stabilize the cost of energy for the people of Tajikistan. Since 1992, USAID has invested over \$504 million in programs that support Tajikistan's democratic institutions, health care, education, and economic growth. <https://www.usaid.gov/tajikistan>

About GAIN

The Global Alliance for Improved Nutrition (GAIN) was launched at the UN in 2002 to tackle the human suffering caused by malnutrition. GAIN is a global, Swiss-based foundation that mobilises public-private partnerships and provides financial and technical support to deliver nutritious foods to those people most at risk of malnutrition. GAIN's purpose is to improve nutrition outcomes by improving the consumption of nutritious and safe food for all people, especially the most vulnerable. Our programs in Latin America, Africa, and Asia enable better diets via nutritional products, such as fortified staple foods, including cooking oil, flours, and condiments like salt and soy sauce. We also support improved maternal and infant health by promoting breastfeeding and specialised products for infants over six months and young children. In addition, we partner with local businesses to improve the quality of food along agricultural value chains. By building alliances that deliver impact at scale, we believe malnutrition can be eliminated within our lifetimes. <http://www.gainhealth.org>