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Technical Meeting

Regional Expert Group on Harmonization of Wheat Flour Fortification Standards

Central Asian Republics, Afghanistan, Pakistan

**14-15 March 2016
Almaty, Rixos Hotel**

Summary

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Background

In September 2014, GAIN was awarded two-year USAID funding for the program “Regional Fortification in the Central Asia Republics and Afghanistan”. The program has an emphasis on improving fortification processes, regulations and monitoring in the region, in particular for flour exports from Kazakhstan to Afghanistan and edible oil exports from Pakistan to Afghanistan. One objective is to improve fortification standards in program supported countries and develop a harmonized standard for wheat flour.

The initial year of the program aimed at understanding regional trade of wheat flour and edible oil as well as related legislation and policy. In October 2015, GAIN and USAID co-hosted a regional stakeholder meeting on food fortification that brought together representatives of governments, private sector, academia, civil society, and development partners from Kazakhstan, Afghanistan, Pakistan, Tajikistan, and Uzbekistan. Besides disseminating findings from regional and country assessments, as well as sharing country status on food fortification efforts, the stakeholder meeting also had an objective to form technical working groups. Several joint priorities were identified, including facilitation of cross-border trade through harmonized standards of wheat flour. A Regional Expert Group on *Wheat Flour Fortification Standards and Potential for Regional Harmonization* was formed. It is chaired by the Kazakh Academy of Nutrition (KAN) and includes specialists representing national standards committees, government regulatory agencies, research institutions, wheat flour producers and respective business associations from six countries - Kazakhstan, Afghanistan, Pakistan, Tajikistan, Kyrgyzstan and Uzbekistan (see the list of members in Annex 1).

During November 2015-January 2016, in consultation with international experts, the KAN members of the group developed a technical justification for harmonizing fortification standards for low extraction (refined, white) flour used in all countries of the region, and high extraction (whole) flour mainly used in Afghanistan and Pakistan. These two analytical documents were shared with the expert group for comments and additional input. The documents highlight the need to ensure, at a minimum, adequate and comparable amounts of bioavailable micronutrients in all countries of the region as specified in the WHO recommendations.

The overall aim of this Technical Meeting was that technical consensus be reached on a unified premix composition to be used in the region. Agenda is presented in Annex 2.

Two options for the micronutrients in premix were proposed:

High extraction flour	Low extraction flour
Iron (NaFeEDTA)	Iron (NaFeEDTA and Ferrous sulfate, dried to increase iron content at a reasonable cost)
Zinc (Zinc oxide)	Zinc (Zinc oxide)
Vit B ₉ (Folic acid)	Vit B ₉ (Folic acid)
Vit B ₁₂ (Cyanocobalamin)	Vit B ₁₂ (Cyanocobalamin)
	Vit B ₁ (Thiamine)
	Vit B ₂ (Riboflavin)
	Vit B ₃ (Niacin)

Objectives

1. To review the draft technical justification for harmonization of wheat flour fortification standards in the region and obtain feedback from regional experts;
2. To reach agreement and propose a harmonized standard for wheat flour fortification; and
3. To discuss the feasibility, timeline, and the next steps for development or modification of national wheat flour standards based on the agreements reached at the regional level.

Participants

The invited meeting participants included regional expert group members, international subject matter experts, and selected representatives of the donor and the implementing partner - see the full list in Annex 1.

Main Results

1. Technical justification of regional harmonization of wheat flour fortification standards was presented and thoroughly discussed by the experts in the course of the 2-day technical meeting.

2. Experts from each country of the region presented their comments on harmonization of flour fortification standards.

3. Detailed discussion of flour fortification standards harmonization continued in two working groups of experts on fortification of 1) low-extraction; and 2) high-extraction wheat flour. The recommendations developed by these two expert working groups are presented below.

4. Experts arrived at a consensus and agreed on the following premix composition to harmonize standards on low and high extraction wheat flour fortification, which is fully consistent with the recommendations of the World Health Organization¹:

High extraction flour		Low extraction flour	
Micronutrients	Levels, ppm	Micronutrients	Levels, ppm
Iron (NaFeEDTA)	15,0	Iron (NaFeEDTA)	15,0
Zinc (Zinc oxide)	30,0	Zinc (Zinc oxide)	30,0
Vit B ₉ (Folic acid)	1,0	Vit B ₉ (Folic acid)	1,0
Vit B ₁₂ (Cyanocobalamin)	0,008	Vit B ₁₂ (Cyanocobalamin)	0,008
		Vit B ₁ (Thiamine)	2,0
		Vit B ₂ (Riboflavin)	3,0
		Vit B ₃ (Niacin)	10,0

5. Participants discussed and agreed on the following next steps for development or modification of the national flour fortification standards based on the regional consensus:

- Kazakh Academy of Nutrition:
 - to design justification for harmonization of low-extraction wheat flour fortification standards without Ferrous Sulfate before May 1, 2016;
- Working group members in each of the target countries:
 - a) to coordinate and agree the proposed premix formula with key ministries, government agencies, institutions and organizations before July 1, 2016;
 - b) to develop draft national standards for fortified low and high extraction flour and present these standards at a regional food fortification conference on September 9-10, 2016 (tentatively).

6. Taking into account that the present regional GAIN/USAID project on food fortification in the CAR, Afghanistan and Pakistan ends in October 2016, it was proposed to initiate search for alternative sources of funding for further improvement of flour fortification agenda in the region based on the harmonized standards.

7. Disseminate workshop materials through web-resources and media (KAN's and GAIN's web pages, social networks, etc.)

¹ WHO, FAO, UNICEF, GAIN, MI, & FFI. Recommendations on wheat and maize flour fortification. Meeting Report: Interim Consensus Statement. Geneva, World Health Organization, 2009.

Recommendations of the working group
on harmonization of **low-extraction flour** fortification standards

- 1) Regional expert group arrived at a consensus and approved the document developed by the Kazakh Academy of Nutrition (“Analysis and justification of the possibility of harmonizing standards for low-extraction wheat flour fortification in target countries of the region: Afghanistan, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, and Uzbekistan”), based on the WHO recommendations.
- 2) Expert group members will provide updated entry data on wheat flour consumption in each of their countries.
- 3) FF materials will be posted on the KAN’s web-resource and/or Google platform to be shared with all stakeholders.
- 4) Proposed premix formula should include iron compound in the form of NaFeEDTA (15 ppm as recommended by the WHO) without adding Ferrous Sulfate.
- 5) As it pertains to vitamin B12 in the premix: KAN will develop a justification to support wheat flour fortification with vitamin B12 for target countries of the region before May 1, 2016.
- 6) KAN to develop a justification for low-extraction wheat flour fortification standards without Ferrous Sulfate before May 1, 2016.
- 7) Working group members in each of the target countries:
 - a) to coordinate and agree the proposed premix formula with key ministries, government agencies, institutions and organizations before July 1, 2016;
 - b) to develop draft national standards for fortified low-extraction flour before September 1, 2016. In this regard, the KAN experts will develop a draft template of national flour fortification standard in line with achieved consensus and share it with all target countries to facilitate development/adjustment of the national flour fortification standards.
- 8) It was jointly proposed to initiate search for alternative sources of funding for further improvement of flour fortification agenda in the region based on the harmonized standards, including the following actions:
 - a) Organization of a high-level conference for decision-makers on aspects of the state support of flour fortification using the harmonized standards (premix purchase, fortification technology, preferential taxation, etc.);
 - b) Improvement of national FF legislation in the countries of the region (specifically, to ensure and provide legislative framework for mandatory fortification of imported wheat flour).
 - c) Monitoring of fortification, quality assurance and control, as well as coverage and availability of fortified flour to the population.
 - d) Fortification program effectiveness evaluation, including anemia and micronutrient deficiencies prevention.
 - e) Organization of an extended conference on the results of program evaluation with an overall goal to further improve implementation of the program, transfer and dissemination of experience, considering best practices and lessons learned.

Recommendations of the working group
on harmonization of **high-extraction flour** fortification standards

- 1) More stakeholder involvement at country level (ensuring engagement of flour millers). Creation of enabling environment for production, import and export of flour including legislation and tax exemptions.
- 2) To fortify high-extraction wheat flour with NaFeEDTA, folic acid, vitamin B12, and zinc.
- 3) Cost benefit analysis (CBA) in each of target countries in the region based on the current national conditions. Disseminate CBA results and findings among key decision-makers and top-level officials.
- 4) To study experience and best practices on premix revolving funds (using the example of Uzbekistan where revolving fund for premixes has been functioning for 10 years).
- 5) Establish Country Working Groups for development of harmonized FF standards.

Annex 1 – List of Participants

Participants of the Technical Meeting

Regional Expert Group on Harmonization of Wheat Flour Fortification Standards
in Central Asian Republics, Afghanistan and Pakistan
Almaty, Kazakhstan, 14-15 March 2016

#	Name	Position	Country
1	M. Wakil Rahimi	Manager , Food and Agricultural Products Standards Department, Afghan National Standards Authority (ANSA)	AFG
2	Homayoun Ludin	Director, Public Nutrition Department, Ministry of Public Health	AFG
3	Sedequallah Reshteen	Head of Policy Department, Ministry of Health	AFG
4	Abdul Baseer Khan	Director Nutrition/ Secretary National Fortification Alliance, Ministry of National Health Services, Regulation and Coordination	PAK
5	Barkat Saeed Memon	Director General, Pakistan Standards and Quality Control Authority	PAK
6	Toregeldy Sharmanov	President, Kazakh Academy of Nutrition	KAZ
7	Shamil Tazhibayev	Vice-President, Kazakh Academy of Nutrition	KAZ
8	Yuri Sinyavskiy	Vice-President, Kazakh Academy of Nutrition	KAZ
9	Oksana Dolmatova	Chief Researcher, Kazakh Academy of Nutrition	KAZ
10	Akkumis Salkhanova	Leading Researcher, Kazakh Academy of Nutrition	KAZ
11	Baurzhan Amirov	Senior Researcher, Kazakh Academy of Nutrition	KAZ
12	Evgeniy Gan	President, Kazakhstan Union of Grain Processors	KAZ
13	Maral Rakhimzhanova	Chief Expert for Health Surveillance of the Committee on Consumer Protection of the RK	KAZ
14	Yelena Kuleshova	Head of the Technical Standardizing Department, Institute of Standardization and Certification	KAZ
15	Dauletbek Kogashov	Department of health care organizations, Ministry of Health and Social Development, RK	KAZ
16	Aigul Nurgabylova	UNICEF Kazakhstan	KAZ
17	Berdimamat Adanbaev	Director of the Center for Standardization and Metrology of the Ministry of Economy	KYR
18	Gulmira Kozhobergenova	Civil Alliance on Nutrition and Food Security	KYR
19	T.R. Bazarbayev	Head of Nutrition Division, the Department of State Sanitary and Epidemiological Surveillance of the Ministry of Health of the Kyrgyz Republic	KYR
20	Ismonscho Sultonova	Head of State Supervision Department in the Sphere of Agriculture	TAJ

21	Adiba Abduvalieva	Head of Standardization Department, TajikStandard	TAJ
22	Abdusalom Vokhidov	Deputy Director of the Republican Center of the Pediatrics and Pediatric Surgery	TAJ
23	Sherzod Atakhanov	Head of Flour Fortification Program in Uzbekistan	UZB
24	Amankul Baikulov	Consultant, Food Fortification Program in Uzbekistan	UZB
25	Diloram Gafurova	Director, «Donmahsulatlary IChM LLC»	UZB
26	Omar Dary	Health Science Specialist (Nutrition), USAID/WDC	USAID
27	Yuliya Beloslyudtseva	Kazakhstan Country Coordinator	GAIN/KAZ
28	Quentin Johnson	Technical Adviser	GAIN

Annex 2 – Meeting Agenda

Day 1 – March 14, 2016

8:40 – 9:00 Registration

Morning session 1 - the need and potential for regional harmonization of wheat flour fortification standards

Moderator: Toregeldy Sharmanov, President, Kazakh Academy of Nutrition (KAN)

9:00 – 9:20 Opening remarks. Meeting objectives. Rationale for regional harmonization.

Toregeldy Sharmanov, President, Kazakh Academy of Nutrition (KAN)

Omar Dary, Ph.D., Health Science Specialist (Nutrition), USAID, Bureau of Global Health

Yuliya Beloslyudtseva, Kazakhstan Country Coordinator, GAIN

9:20– 10:00 The need and scientific approaches for regional harmonization of food fortification standards. Examples of exiting regional standards.

Omar Dary, Ph.D., USAID Health Science Specialist (Nutrition), Bureau of Global Health

10:00–10:30 Analysis and justification of the possibility of harmonizing standards for wheat flour fortification in CAR, Afghanistan and Pakistan

Shamil Tazhibayev, Vice President, KAN

10:30–10:45 Discussion

10:45 – 11:00 Coffee Break

Morning session 2 - Country comments/feedback on the proposed technical justification for regional harmonization

Moderator: Omar Dary, Ph.D., USAID Health Science Specialist (Nutrition), Bureau of Global Health

11:00 – 11:10 Feedback from Afghanistan, Dr. Homayoun Ludin, Director, Public Nutrition Department, Ministry of Public Health

11:10 – 11:20 Feedback from Kazakhstan, Evgeniy Gan, President, Union of Grain of Kazakhstan

11:20 – 11:30 Feedback from the Kyrgyz Republic, Berdimamat Adanbaev, Director of the Center for Standardization and Metrology of the Ministry of Economy

11:30 – 11:40 Feedback from Pakistan, Dr. Abdul Baseer Khan, Director Nutrition/ Secretary National Fortification Alliance, Ministry of National Health Services, Regulation and Coordination

11:40 – 11:50 Feedback from Tajikistan, Abdusalom Vokhidov, Deputy Director of the Republican Center of the Pediatrics and Pediatric Surgery

11:50 – 12:00 Feedback from Uzbekistan, Amankul Baikulov, Consultant, Food Fortification Program in Uzbekistan

12:00 – 12:30 Discussion

12:30 – 13:30 Lunch

Afternoon session - Breakout discussions to reach technical consensus on harmonization of standards

Moderator: Yuliya Beloslyudtseva, Kazakhstan Country Coordinator, GAIN

13:30 – 14:00 Regional standards for low- and high- extraction wheat flour fortification - examples for discussion

Yuriy Sinyavskiy, Vice President, KAN

14:00 – 14.20 – Discussion

14.20 - 17:30 (coffee break from 15:20 - 15:40)

Low extraction flour expert sub-group

Chair: Shamil Tazhibayev, Vice President, KAN

High extraction flour expert sub-group

Chair: Quentin Johnson, Technical Adviser, GAIN

The discussion will cover the following:

- **an overview of the proposed justification/standards**
- **clarification of input parameters (e.g., wheat flour consumption levels)**
- **comments and concerns regarding the proposed justification/approach**
- **a detailed discussion of each of the identified issues to reach an acceptable solution**
- **the next steps to finalize the Regional Fortification Standards for low- and high extraction flour**
- **feasibility, procedures and timeline for adoption of the Regional Standard at the country level**

17:30-17:40 Day 1 Wrap-up

Shamil Tazhibayev, Vice President, KAN

Yuliya Beloslyudtseva, Kazakhstan Country Coordinator, GAIN

18:00 - 20:00 Networking dinner

Day 2 – March 15, 2016

Morning session 1 - Standards harmonization - presentations, remaining issues, development of solutions

Moderator: Quentin Johnson, Technical Adviser, GAIN

9:00 - 9:20 Group 1 presentation.

9:00 - 9:20 Group 2 presentation.

9:40 - 10:40 Discussion. Development of solutions to each of the remaining issues.

10:40 – 11:00 Coffee break

11:00 - 12:30 Discussion (cont.). Conclusions. Next steps.

12:30 – 14:00 Lunch

The time in the afternoon is reserved for additional discussions as necessary to reach regional agreements and commitments or for additional presentations

16:00-16:30 Close out session (summary of the deliberations and next steps)

Shamil Tazhibayev, Vice President, KAN

Quentin Johnson, Technical Adviser, GAIN

Yuliya Beloslyudtseva, Kazakhstan Country Coordinator, GAIN

Proposed ideas for other presentations:

- A comparative analysis of approaches for the development of national fortification standards and related technical protocols in CAR, Afghanistan and Pakistan