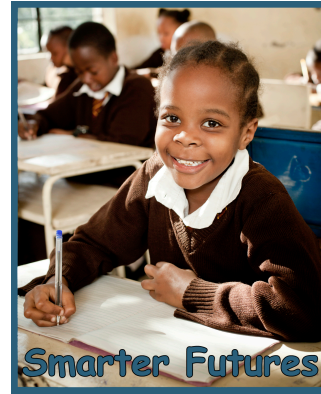


Smarter Futures Project Annual Narrative Report January 2019



Executive Summary

The Smarter Futures grant between the Global Alliance for Improved Nutrition (GAIN) and the International Federation of Spina Bifida and Hydrocephalus (IF) became effective as of March 1, 2018. The overall objective of this grant is to improve the reach, coverage, and adequacy of fortified grains throughout the African continent in order to improve the nutritional status of target populations. To this end, the Smarter Futures grant consists of a broad range of activities built on rigorous data analyses that identify areas most in need, areas where the fortification of industrially milled grains can have the greatest impact, and key challenge areas for programs already in progress but faltering. Through the grant's targeted efforts and unique partnerships, FFI, as the implementing partner, aims to provide direct assistance to 12 countries over the next one year. These countries include (Angola, Algeria, Botswana, Egypt, Ethiopia, Malawi, Morocco, Mozambique, Nigeria, South Africa, Uganda, and Zimbabwe). In addition to direct technical assistance, areas of focus in this grant include providing online fortification trainings, building fortification trainings into milling schools across Africa, improving how compliance information is collected and acted upon, and convening regional implementing partners and government to ensure efforts are complementary, effectively targeted, and non-duplicative.

Key activities undertaken in the last one year include:

- Organized a regional Southern Africa Development Community (SADC) Technical Assistance Workshop, which resulted in the addition of two SADC countries to the Smarter Futures technical assistance activities (Botswana and South Africa) and the creation of a Partner Coalition (ECSA, SADC, FFI, UNICEF, and GAIN) to ensure targeted assistance is provided to each country as needed and in a timely manner.
- Participated in the IAOM Meeting in Nairobi to garner miller support and gauge where further technical assistance may be needed in specific areas.
- Completed a 2018 Africa Strategy Refresh and presentation is planned in February to the Smarter Futures Steering Team to better inform partner work plans across the continent.
- Secured FortifyMIS interest and identified training next steps in Nigeria, Zimbabwe, and Mozambique.
- Completed a FortifyMIS regional partner training for an India-based GAIN staff person; planned for GAIN Nigeria staff; planning in process for HKI and WFP staff.
- Created a Smarter Future workshop evaluation that includes a more systematic follow-up on the usage of the tools, the progress made towards institutionalization, and commitments made by institutions.

- Completed desk reviews and secured plans for technical assistance trips to Ethiopia, Egypt, and Morocco.
- Began the transition to an online platform for the Introduction to Micronutrients and Fortification Training.
- Identified next steps with KSU and IOAM regarding fortification training in their already-existing programs.
- Completed trips to Nigeria, Senegal, and Cote d'Ivoire, which helped solidify next steps re: rice fortification in West Africa jointly with WFP and GAIN.

Top achievement during this reporting period:

SADC Workshop. The organization of the regional Southern Africa Development Community (SADC) Technical Assistance Workshop, jointly with the SADC Secretariat and UNICEF was a top achievement for this reporting period. The workshop was a unique gathering that brought together 13 SADC Member States to talk in great detail about their specific fortification challenges and allowed partners to share with them new regulatory monitoring tools and global guidance. The event paved the way for key next steps in each country. Following the workshop, a Partner Coalition was formed comprised of SADC, ECSA, FFI, GAIN, and UNICEF. The Coalition has reviewed the specific needs of each country and agreed upon a lead agency best placed to provide needed support in each case. GAIN will lead in Malawi, Mozambique, Tanzania, and Zambia. FFI will lead in South Africa, Zimbabwe, Botswana, Namibia, Angola, and Mauritius. ECSA will lead in Lesotho and Eswatini. WFP or UNICEF will potentially lead in Madagascar. The lead for Comoros and Seychelles is TBD, potentially SADC.

The workshop also enabled a strong working relationship to be built between FFI and the SADC Secretariat. The two groups have had several brainstorming sessions since the workshop related to the creation of a regional monitoring framework and the provision of joint TA to SADC countries. We very much look forward to continuing this relationship moving forward particularly as SADC works to complete regional standards and a regional fortification alliance.

Revised Africa Strategy. The completion of the revised 2018 FFI Africa Strategy was a tremendous data collection and analysis effort undertaken by a second-year Emory graduate student this year. This project involved reviewing existing databases and conducting interviews with FFI staff and implementing partners to collect updated country specific data on the following topics:

- Micronutrient deficiencies
- Legislative status of mandatory fortification programs
- Fortification standards including fortificants used and established levels and / or ranges
- Monitoring structures and protocols in place
- National program costing estimates
- Production data
- Grain availability from the Food and Agriculture Organization
- Coverage data
- Quality data

- Nutritional intake and consumption data
- Industry assessment and milling structure for wheat flour, maize flour, and rice
- Key barriers and challenges
- Percent urban population
- Political stability
- Health impacts
- Disease burden
- World Bank corruption index
- Partner mapping

FFI country-specific profiles were updated and an analysis exercise conducted that prioritized countries disaggregated by wheat flour, maize flour, and rice based on set of weighted indicators. The results of this analysis will be presented next week at the Smarter Futures; Steering Committee for discussion, revision, and to ultimately better inform partner work plans across the continent. Further details on this are provided under **Activity 3.1** below.

FortifyMIS Position and Lessons Learned. Although FFI is slated to continue discussions and support to Zimbabwe, Nigeria, and potentially Mozambique on the FortifyMIS, there is a need to reflect on best next steps given that we don't have a country to date that has successfully adopted and rolled out the MIS tool. Below is our current thinking and suggested approach:

1. *Nail it, then scale it.* Currently, there is a long list of interested countries, which, to date, are being pursued as potential FortifyMIS rollout countries between FFI and GAIN. However, we have not yet proven the viability of the MIS at a sub-regional or national level. Given the fact that this technology has not yet been proven in any one country, there is a need to re-focus our priorities as implementing partners. There is a need to “nail it, then scale it”. In other words, focus strategically on a maximum of 3 to 4 countries between the two implementing partners (FFI and GAIN). Don't go beyond those countries until a) there is actual country-specific data being entered into the MIS or b) concrete reasons are identified for why rollout will not work in these countries. Then, and only then, should the MIS training and technology be scaled to new countries. Such an approach will allow us to have a more effective training package to offer once we understand what is really needed to make this a viable technology for compliance monitoring.

FFI proposes continuing support to Zimbabwe (the MIS has already been adapted to the country context and inspectors have already been trained) and Nigeria (the MIS has already been adapted for the country context). We suggest that GAIN focus on Uganda and either Bangladesh or Kazakhstan (trainings and MIS adaptations have occurred in all three countries to date).

2. *Need for last mile partner agency support.* In any country where the MIS is proposed, a partner agency that has a consistent on-the-ground presence should be identified.

One of biggest challenges in the uptake of the MIS is the lack of on-the-ground support to countries to move from training to actual role out on a state by state or

district by district level. We are seeing this in Liberia, Zimbabwe, and Kazakhstan where there has been a dramatic loss in momentum in the rollout of the MIS after the implementing partner has left. In order to address this challenge, we suggest training partner agencies that have strong on-the-ground presence that can provide troubleshooting and last mile support to MIS users. FFI has been in touch with Akoto Osei at HKI and Dora Panagides at WFP to discuss the potential of HKI and WFP being MIS support partners. WFP has shown interest. Given the current rollout situation with the MIS, however, the most practical approach will be to find an interested country first, then identify a MIS support partner. This maybe HKI or WFP or it may be another agency in-country.

3. *Realistic timing for rollout.* Most countries do not have a well mapped out regulatory monitoring framework and this take time to put into place. Many meetings and discussions need to take place in order to determine who should be collecting what data from where, how often, where samples and audit reports should go, how the results should be reported out and by whom, and who follows up on non-compliance. This information is needed for the MIS to be effective (in fact, this information is needed for compliance monitoring in general to be effective, regardless of MIS adoption). Therefore, introducing the MIS into a country may, in some cases, mean weeks or even months of mapping discussions. However, these discussions are critical for any monitoring framework to be effective. We must be realistic in our assumptions for rollout in countries that may not already have mapped out their regulatory monitoring framework.
4. *Usability.* We came very close to making the MIS too complex with the hopes of pleasing everyone. This technology needs to hit a delicate balance between being extremely user-friendly and obtaining the nuanced food safety and fortification data needed for decision-making across all countries. Setting up the MIS to be country-specific is a burdensome process, however, use by inspectors and producers is not. Questions remain to be answered re: can we expect all inspectors and producers to use a hand-held device, moving away from familiar paper forms? Will enough devices exist for usage? Will devices “disappear”?

Challenges faced / variances with what was planned

All activities are on track to be completed as outlined in the original work plan with the exception of technical assistance to Algeria. This is delayed due to overbooked FFI staff time and the current security situation in the country. Other notably variances are in relation to the FortifyMIS rollout and have already been described above.

Main focus areas for 2019:

- Providing direct technical assistance to Ethiopia, Egypt, Morocco, Algeria, Angola, Botswana, and South Africa
- Proving the viability (or not) of the MIS in Zimbabwe or Nigeria and generating a revised point of view on key next steps globally

- Complete transition of the Introduction to Micronutrients and Fortification training course to an online platform; conclusion on the most effective means of offering the KSU flour and rice fortification training modules
- Engagement with partners on the creation of regional rice fortification standards and rice fortification cost benefit analysis trainings for Nigeria and Senegal

The activities outlined below provide a summary of progress made to date and proposed plans on work plan *objectives slated for 2018 and 2019*. Activities slated for 2020 or 2021 are not included in this update. The Smarter Futures work plan can be found [here](#) for reference.

Activity Summary

Section 1: Regional and Country-Specific Trainings

1.1 Organize regional Southern Africa Development Community (SADC) Technical Assistance Workshop

Proposed timeline: Q3 and Q4 2018

Actual timeline: Oct 2018

Status: **Completed**

Output: Training provided to 11-14 SADC countries to address common challenges and country-specific needs.

Outcome: Change in knowledge / capacity per the pre-post assessments; champions identified and developed.

Summary of SADC Workshop

Many countries in the SADC region are implementing mandatory maize and / or wheat flour fortification or are considering the adoption of this intervention at a national level. Specifically, there are five countries in the SADC region with mandatory maize and / or wheat flour fortification programs (Malawi, Mozambique, South Africa, Tanzania, and Zimbabwe), six with voluntary maize and / or wheat flour fortification programs (Botswana, Democratic Republic of the Congo, Lesotho, Namibia, Eswatini, and Zambia), and five countries that are interested in starting a national cereal grain fortification program but have not done so to date (Angola, Comoros, Madagascar, Mauritius, and Seychelles).

The overall objective of the workshop was to provide guidance to Member States on regulatory monitoring and surveillance good practices and provide an opportunity to learn of each Member State's specific successes and challenges. The workshop focused specifically on cereal grain fortification.

Each of 16 SADC Member States was invited to nominate three participants for the workshop representing the following organizations involved in the flour fortification program:

- Public Sector: two participants per country (one from Food Control Department and one from Nutrition Department or Ministry of Health)
- Private Sector: one participant from a milling industry

Workshop Breakdown	
Facilitators	5
Participants (government / industry)	36
Partners and premix companies	19
Total	60

The workshop included participant from the following 13 Member States: Botswana (2), Eswatini (3), Lesotho (3), Democratic Republic of the Congo (1), Madagascar (3), Malawi (3), Mauritius (1), Namibia (2), Seychelles (2), South Africa (8), Tanzania (2), Zambia (3), and Zimbabwe (3).

The Member States of Angola, Comoros, and Mozambique were absent from the workshop.

Partners and premix companies included FFI (4), GAIN (2), UNICEF (3), FAO (1), ECSA (2), Muhlenchemie (2), DSM (1), Millhouse (2), Hexagon (1) and independent consultants (1).

The outcomes of the workshop included:

- Government and private sectors capacitated on developing and implementing a feasible and effective monitoring framework using new practices and tools;
- Good practice national regulatory monitoring systems documented from selected countries;
- The establishment of a regional road map in addition to country-specific road maps that identify key areas of need and next steps for each Member State;
- Increased understanding of national stakeholder requirements and roles and responsibilities;
- Increased dialogue between wheat and maize flour millers and government regulatory authorities on key challenges and expectations;
- Member States exposed to the Secretariat's efforts to ensure food fortification is implemented as one means of addressing micronutrient deficiencies in the region.
- Introduction of a new Regional Fortification Alliance that will support the Secretariat to roll out the roadmap established for the regional monitoring framework for food fortification.

The following observations were made during the country and group presentations and subsequent discussions regarding general Member State needs and next steps:

Mandatory Countries

Generally speaking, mandatory countries need support in the following areas:

- Inspector training on new fortification-specific regulatory monitoring practices;

- Recommendations for enhanced premix procurement mechanisms to bring down the cost for industry (e.g. pooled or joint premix orders);
- Adequate testing laboratories (national and / or regional);
- Guidance on *which* qualitative tests to use as best practice in place of frequent quantitative testing (these should be published as recommended tests);
- Effective industry incentives (i.e. tax breaks, etc.);
- Exploring alternative intervention options for reaching those that do not consume industrially produced grain products including viable solutions for small-scale fortification; and
- Generating data on coverage, reach, and impact of fortified foods.

There is an overall need for mandatory countries to generate monitoring data to understand whether or not industry and importers are compliant with national standards. This is due to either a lack of trained inspectors, a lack of capacity to test fortified foods (both qualitatively and quantitatively), and / or a lack of a strong regulatory monitoring framework that outlines how to conduct monitoring and to what institutions the monitoring results should go.

South Africa may need more support around ushering through revised standards and ensuring industries are compliant with the standards. This will not only impact South Africa but the many neighboring countries importing products from South Africa (e.g. Lesotho, Eswatini, Botswana, and Namibia).

Voluntary Countries

Generally speaking, voluntary countries are willing to legislate mandatory fortification with support in the following areas:

- High-level ministerial advocacy for a mandatory program;
- Consumer-level advocacy to increase demand for fortified foods;
- Technical support for standards development and adoption;
- Industry engagement, buy-in, and QA/QC trainings;
- Regulatory monitoring inspector trainings;
- Integration of fortification into food safety parameters and existing surveillance systems; and
- Generating data on coverage of current and potential food vehicles for fortification.

Voluntary countries could potentially benefit the most from SADC Secretariat support that encourages a regional fortification agenda and mandatory legislation and provides guidance on next steps after legislation is drafted.

Not Started Countries

Generally speaking, not started countries need support in the following areas:

- First and foremost, understanding country-specific needs and collecting data on coverage, consumption, and appropriate potential food vehicles for fortification;
- High-level ministerial advocacy for a mandatory program;

- Standards creation;
- Development of a robust monitoring framework for fortification, which includes ensuring that fortification is integrated into a food safety monitoring framework; and
- Industry support and buy-in.

Further efforts are needed from partner agencies and the SADC Secretariat on:

- Effective industry incentives that could motivate industry to produce adequately fortified foods regardless of legislation and enforcement status;
- Best practice for *qualitative* tests of fortified food;
- Support for a regional reference laboratory;
- Exploring alternative intervention options for reaching those that do not consume industrially produced grain products including viable solutions for small-scale fortification;
- Guidance on which regulatory monitoring tools to use and when based on the status of programs;
- The collection of coverage, reach, and consumption data for potential fortification vehicles (lacking in most countries).

Food safety monitoring frameworks exist in most countries, which can be leveraged for inclusion of fortification monitoring. Health or nutrition surveillance programs are ongoing in most countries, which present an opportunity for including fortification indicators.

General Remarks from Participants:

- A request was made that WHO be present at any future regional fortification workshops.
- Further exploration and recommendations are needed for new fortification vehicles that do not currently have WHO recommendations (e.g. oil).

A summary and a detailed outline of the workshop discussions and findings can be found in the final SADC workshop report [here](#). The post workshop assessments are still being analyzed. Once complete, the report will be updated with the level of change in knowledge and capacity by the participants. Champions from each country were identified in the workshop and will serve as main points of contact when follow-up technical assistance is pursued.

Next Steps: The event paved the way for key next steps in each country. Following the workshop, a Partner Coalition was formed comprised of SADC, ECSA, FFI, GAIN, and UNICEF. The Coalition has reviewed the specific needs of each country and agreed upon a lead agency best placed to provide support needed to move fortification forward in the next year and to ensure partner efforts are complementary as opposed to duplicative. GAIN will lead in Malawi, Mozambique, Tanzania, and Zambia. FFI will lead in South Africa, Zimbabwe, Botswana, Namibia, Angola, and Mauritius. ECSA will lead in Lesotho and Eswatini. WFP or UNICEF will potentially lead in Madagascar and the leads for Comoros and Seychelles are TBD, potentially SADC.

1.2 Organize two regional technical assistance workshops to be informed by the Africa Strategy Refresh.

Proposed timeline: Q3 and Q4 2019

Actual timeline: TBD based on a review and discussion of the Africa Strategy Refresh findings

Status: **Not completed but on track**

Output: Training provided to 5-8 regional countries to address common challenges and country-specific needs.

Outcome: Change in knowledge / capacity per the pre-post assessments; champions identified and developed

Next Steps: A discussion around this activity will commence after the Africa Strategy Refresh is complete and presented to key partners for feedback in the February Steering Committee meeting.

1.3 FortifyMIS support provided to three countries (Zimbabwe, Nigeria, and TBD)

Proposed timeline: Q2-Q4 2018

Actual timeline: Q2 2018-Q4 2019

Status: **In progress**

Output: FortifyMIS users in each country trained on use of the MIS; MIS is accepted and adapted.

Outcome: MIS used by intended users in all three countries to gather and report nationally on fortification compliance information (confirmed by indicators of use); change in monitoring capacity per pre-post training assessment.

A mission trip to Nigeria took place in January 2019 to present the concept of the MIS at a Director Generals (DGs) meeting. There was general support for the MIS from all DGs present in the meeting. Next, they would like the MIS presented to Nigeria's Fortification Core Team. This Core Team will then be able to identify which state should be used as the pilot, which agency should "own" the MIS, and which individual(s) are best placed to be MIS administrators.

A mission trip to Zimbabwe is expected in March 2019, however, the political situation may cause this activity to be delayed further. Discussions are underway with the GAIN office in Mozambique to make a presentation of the MIS to key stakeholders and to subsequently map the roles and responsibilities of agencies involved in inspections and testing. This trip is planned for March 2019. Malawi has also asked FFI for a MIS training in the coming months. This is currently being discussed with the Government of Malawi, although, should be reviewed internally based on the current thinking re: reducing the number of rollout countries as outlined above.

Next Steps: A one- to two-day orientation of the MIS will be given to Nigeria's Fortification Core Team. The timing of this orientation will be dependent on when the next core team meeting is taking place. FFI is coordinating with the GAIN Nigeria office to schedule attendance at this meeting. Following the MIS presentation, the Core Team will work to identify who is best place to host the MIS in Nigeria, the rights and permissions of various MIS users, and which states in Nigeria will be targeted for an initial rollout. This trip will also include FFI training a GAIN staff member on use of the MIS so that Nigeria has someone on the ground who can provide day-to-day troubleshooting and last mile support.

1.5 Regional partners trained in the use of FortifyMIS so their staff are knowledgeable on what is available and can present to government counterparts.

Proposed timeline: Q3 2018 – Q1 2019

Actual timeline: Q3 2018 – Q4 2019

Status: [In progress](#)

Output: Staff from three regional partner organizations are trained on use of the MIS so they have a deep understanding of the MIS and are able to make it available at gov't levels.

Outcome: Regional partners train government staff on use and adoption of the MIS in three different countries.

In January 2019, FFI trained a GAIN staff person based in India on the MIS who has been designated as the MIS lead for GAIN. GAIN staff from Nigeria will be trained by FFI Q2 or Q3 2019.

Next Steps: Discussions are underway with Dora Panagides at WFP and Akoto Osei at HKI around how best to step up regional MIS organizational trainings for their respective staff members. It's likely best to approach these trainings only when interest arises from countries in which WFP or HKI have a strong on the ground presence. If and when needs arise from other countries without a strong presence by WFP or HKI, MIS trainings should be provided to the agencies that do have such a presence. Technoserve will be an important player to engage on this activity.

1.6 Participation in relevant regional fortification meetings to share good practices.

Proposed timeline: Q4 2018 onward

Actual timeline: TBD

Status: [In progress](#)

Output: Presentations made at regional meetings.

Outcome: New regional partnerships are established.

As meetings arise, these will be attended. To date, no relevant regional meetings have taken place.

1.7 Participation in IAOM meeting in Nairobi.

Proposed timeline: Q4 2018

Actual timeline: Q4 2018

Status: **Completed**

Output: Acceptance is obtained to present at meeting.

Outcome: Presentation at plenary session occurs and new private-sector partnerships solidified.

This meeting was attended by three FFI staff members. Scott Montgomery was given a slot in the plenary session to make a presentation. The presentation was titled “Thank You For Fortifying Wheat Flour” and was well received. The key message being that it is not governments, UN agencies or development agencies who fortify wheat flour, it’s the millers. The presentation highlighted progress made in the Middle East and Africa over the years and the compelling reasons why millers do this and why it matters.

It was a great networking opportunity to visit with millers, premix suppliers, milling equipment vendors. The FFI team was also invited to tour the Buhler milling school in Nairobi. It is a first-class facility and with the support of Technoserve fortification has been embedded in the milling curriculum.

Next steps: Follow through with premix suppliers in preparation for Morocco trip, concerns that premix purchases have decreased dramatically. Follow through with Buhler and Technoserve on the specific fortification training that was embedded in the Buhler Milling Schools curriculum.

1.9 Cost Benefit Analysis (CBA) training in two countries.

Proposed timeline: Q3 and Q4 2019

Actual timeline: Q3 and Q4 2019

Status: **In progress**

Output: Based on the findings of activity 3.1, two countries are identified and trained on the new CBA tool.

Outcome: Country teams use the CBA tool to advocate for fortification at a country level.

FFI staff are currently involved in the discussions led by GAIN in collaboration with University College London (UCL) to update the CBA tool. An updated version of the new CBA was shared with partners and inputs obtained for a final review by stakeholders.

Next Steps: Final review of the CBA then identification of training next steps.

Section 2: Evaluation of Regional Technical Workshops

2.2 Evaluation conducted of SADC meeting and country-specific follow-up provided to SADC countries following the workshop.

Proposed timeline: Q3 2018 – Q1 2019

Actual timeline: Q3 2018 – Q1 2019

Status: **In progress**

Output: Evaluation is conducted and priority follow-up countries are identified based on capacity gaps.

Outcome: Change in knowledge/capacity per the pre-post assessments to ensure meeting objectives were met; discussions begun with priority countries to engage in country-specific technical assistance as needed in the coming months.

The post-assessment is currently being analyzed and will be compared against the pre-assessment evaluation in order to determine change in knowledge and capacity. The pre-assessment showed lowest scores (i.e. below 40% answering correctly) for the following questions:

- Food fortification requires significant community behavior change (31.3% answered correctly)
- Assessments of fortification compliance can be conducted as part of household/individual monitoring and evaluation (10.4% answered correctly)
- Quantitative testing of food samples is always needed to determine compliance (31.3% answered correctly)

Discussions have taken place regarding priority countries for follow-up with SADC, ECSA, FFI, UNICEF, and GAIN. This has already been outlined above under *top achievements*.

A summary of the pre-workshop assessment can be found below:

Table 1: Number of respondents to complete the pre-workshop evaluation by affiliation.

Affiliation	n	%
Country Delegates	41	85.4
Partner	4	8.3
Unknown	3	6.3
Total	48	100.0

Table 2: Percent of respondents who correctly answered the True/False questions in the pre-workshop evaluation.

No.	Question	Answer	Total No. of Respondents (N)	Correct %
1	Many SADC countries have obligatory fortification of salt	T	46	56.5
2	Food fortification requires significant community behavior change	F	48	31.3

3	Flour fortification with folic acid reduce the risk of neural tube defects	T	47	93.6
4	There is no difference in the prevalence of spina bifida among countries with and without mandatory policies for fortifying flour with folic acid	F	47	74.5
5	Ongoing, systematic collection of data regarding nutrition program process and outcome indicators is a component of public health nutrition surveillance	T	48	95.8
6	Non-representative household level data can be used to evaluate whether a country has changed its fortification coverage	F	46	58.7
7	Government is the only authority involved in ensuring food is fortified according to the country's standards	F	48	68.8
8	The only option for evaluating the impact of a food fortification program is to implement a stand-alone national fortification survey	F	48	64.6
9	Assessments of fortification compliance can be conducted as part of household/individual monitoring and evaluation	F	48	10.4
10	Determining fortification compliance can be effectively implemented in countries with limited resources	T	47	61.7
11	A food production site can be classified as compliant when only a facility's audit and qualitative testing of food samples are conducted	T	48	60.4
12	Quantitative testing of food samples is always needed to determine compliance	F	48	31.3
13	Regulatory monitoring inspectors are the only individuals that can collect information on the quality of fortified products	F	48	52.1
14	Management information systems help improve compliance data collection and analysis	T	48	97.9

Next Steps: Complete post-assessment and post-workshop evaluation analysis and write-up the results by June 2019. Finalize discussions with partners to ensure each country present at the SADC meeting is provided with support moving forward.

Section 3. In-Country Capacity Building

3.1 Strategy refresh for all of Africa

Proposed timeline: Q2 2018 – Q1 2019

Actual timeline: Q2 2018 – Q1 2019

Status: **Completed**

Output: Landscape analysis, industry analysis, partner mapping, and current state of fortification are completed for each country.

Outcome: Priority countries and regional activities are identified and inform future work plans.

The Africa Strategy Refresh has been completed and will be presented at a Smarter Futures Steering Committee meeting in February 2019. In the meeting, partners will have the opportunity to review findings, make suggested modifications, and adjust organizational work plans based on identified next steps. This meeting provides a unique opportunity to ensure that countries in need of support are not missed by the development community. It simultaneously ensures that partner efforts are coordinated, efficient, and appropriate given the specific needs of the country.

A snap shot of the preliminary findings can be found below. It should be noted that we are in the process of several re-analyses before the Steering Committee meeting so these preliminary findings should not be taken as final. Nor do these findings include the feedback from the Steering Committee members.

Monitoring & Support countries are those that are already fortified 75% or more of the respective grain. These countries should be targeted for support around a variety of potential areas such as a) do standards meet WHO recommendations, b) are domestically produced and imported products fortified to national standards, and c) what is the breakdown of rural vs. urban reach.

Priority 1 countries are those that we are confident will reach 75% fortified within the next 1-3 years with some support.

Priority 2 countries are those where fortification is viable, a notable burden of disease can be addressed through fortification, and efforts are focused on supporting current networks and filling gaps.

Strategic Advocacy are those that will likely not spend significant time or finances to push fortification but partner agencies could initiate and support efforts to advance fortification if there is interest from government.

Gray countries are those where the political environment and/or public perception do not favor fortification. Partner agencies could engage in advocacy efforts and monitor the situation.



Wheat Flour Summary

Monitor & Support	Priority 1	Priority 2	Strategic Advocacy	Gray
Benin, Burkina Faso, Cameroon, Cape Verde, Cote d'Ivoire, Djibouti, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Mali, Mauritania, Mozambique, Niger, Nigeria, Senegal, South Sudan, Tanzania, Togo, Uganda	Algeria, Angola, Egypt, Equatorial Guinea, Gabon, Lesotho, Madagascar, Malawi, Mauritius, Morocco, Sierra Leone, South Africa, Tunisia, Zambia, Zimbabwe	Botswana, Eritrea, Ethiopia, Liberia, Namibia, Rwanda, Sao Tome and Principe	Burundi, Congo Rep., Comoros, Eswatini, Seychelles	Chad, Central African Republic, DRC, Sudan, Somalia, Libya



Maize Flour Summary

Monitor & Support	Priority 1	Priority 2	Strategic Advocacy	Gray
Cote d'Ivoire, Kenya, Mozambique, Nigeria	Benin, Burkina Faso, Cabo Verde, Malawi, Namibia, Tanzania, South Africa, Zambia	Botswana, Cameroon, Eswatini, Lesotho, Togo, Uganda, Zimbabwe	Burundi, Rwanda	Algeria, Angola, Central African Republic, Chad, Comoros, Congo, DRC, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Libya, Madagascar, Mali, Mauritania, Mauritius, Morocco, Niger, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Sudan, Sudan, Tunisia

Rice Summary



Monitor & Support	Priority 1	Priority 2	Strategic Advocacy	Gray
N/A	Djibouti, Guinea, Gambia, Ghana, Liberia, Madagascar, Mauritius, Senegal	Benin, Cote d'Ivoire, Gabon, Guinea-Bissau, Nigeria, Sierra Leone	Cabo Verde, Comoros, Egypt, Mali, Mauritania, Sao Tome and Principe	Algeria, Angola, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo, DRC, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Kenya, Lesotho, Libya, Malawi, Morocco, Mozambique, Namibia, Nigeria, Rwanda, Seychelles, South Africa, south Sudan, Sudan, Togo, Tunisia, Uganda, Zambia, Zimbabwe

Next Steps: Complete re-analysis, present preliminary findings at the February 2019 meeting; adjust organizational works plans as necessary.

3.2 Technical assistance to Egypt

Proposed timeline: Q3 2018 – Q1 2019

Actual timeline: Q1 2019

Status: **In progress**

Output: Discussions begun with government regarding how to address political barriers and re-start fortification; areas of TA identified and provided.

Outcome: Fortification is re-started.

A desk review of the fortification situation in Egypt has been completed and key partners approached for in-country meetings. A mission trip will take place in March 2019.

Next Steps: Complete the mission trip; present findings to the Government of Egypt with recommended next steps; present findings of the trip at a meeting hosted by Muhlenchemie to take place in Cairo in March. The meeting will include members from the private sector, partners, and government and will be important to refine findings and agree upon next steps.

3.3 Technical assistance to Morocco

Proposed timeline: Q4 2018 – Q1 2019

Actual timeline: Q4 2018 – Q1 2019

Status: **In progress**

Output: Food inspectors and millers trained on regulatory monitoring and FortifyMIS. Other tools may also be considered.

Outcome: Food producers and inspectors collect sufficient monitoring data on a periodic basis; information is used to inform and improve the state of compliance.

A desk review of the fortification situation in Morocco has been completed and key partners approached for in-country meetings. A mission trip will likely take place in February 2019.

Next Steps: Complete the mission trip; present findings to the Government of Morocco with recommended next steps.

3.4 Technical assistance to Angola

Proposed timeline: Q3 and Q4 2019

Actual timeline: TBD

Status: **Not completed but on track**

Output: Begin discussions with government around the design of a national fortification program. Identify priority areas of need and provide targeted TA.

Outcome: TA results in measureable change in the specific area of support. This may include: initiation of legislation process; standards development; inspector training; and / or advocacy training.

This activity is on hold until after the Morocco trip is complete.

Next steps: Complete a desk review of the fortification situation in Angola; identify partner agency support needed for translation purposes.

3.5 Technical assistance to Algeria

Proposed timeline: Q4 2018 – Q1 2019

Actual timeline: TBD

Status: **Not completed and will likely be delays until Q3 or Q4 2019**

Output: Begin discussions with government around the design of a national fortification program. Identify priority areas of need and provide targeted TA.

Outcome: TA results in measureable change in the specific area of support. This may include: initiation of legislation process; standards development; inspector training; and / or advocacy training.

This activity is on hold until after the Morocco trip is complete.

Next steps: Complete a desk review of the fortification situation in Algeria; carefully monitor the security situation.

3.6 Technical assistance to Ethiopia

Proposed timeline: Q3 and Q4 2019

Actual timeline: Q1 2019

Status: [In progress](#)

Outputs: TA provided around QA/QC for government food inspectors and for domestic food producers including appropriate testing protocols.

Outcomes: Food producers and inspectors collect sufficient monitoring data on a periodic basis and conduct appropriate testing; information is used to inform and improve the state of compliance.

A desk review of the fortification situation in Ethiopia has been completed. FFI has been asked by the GAIN Ethiopia office to conduct a Training of Trainers (ToT) for wheat flour producers, oil producers, and government regulatory inspectors. The trainings will be split into two: one for flour producers and regulatory inspectors and one for oil producers and regulatory inspectors. The first training will take place the first week of March. The second training date is TBD. A draft of the March Flour ToT can be found [here](#). Following the March training, FFI staff will remain in-country to conduct a needs assessment to determine further areas of support that may be needed in Ethiopia.

Next Steps: Complete the design and execution of the first ToT slated for March.

3.7 Targeted technical assistance provided to two SADC countries as identified in activity 2.1 following the SADC workshop.

Proposed timeline: Q1 – Q3 2019

Actual timeline: Q1 2019 – Q2 2020

Status: [In progress](#)

Outputs: TA is provided, which may include feasibility and reach, QA/QC, advocacy, or other needs as identified by the government, SF, and partners.

Outcomes: TA results in measureable change in the specific area of support.

Following initial discussions with the SADC Secretariat Partner Coalition team on the outcomes and next steps of the SADC meeting, FFI will serve as lead agency in support to South Africa, Botswana, Zimbabwe, Namibia, Angola, and Mauritius. Funding under this Smarter Futures grant will include support to South Africa and Botswana.

Next Steps: Identify next steps for country-specific engagement. FFI staff will attend a regional SADC meeting in March 2019 at which point discussions will begin with the Government of South Africa regarding a timeline for specific support needed around standards revisions and compliance monitoring.

3.8 Conduct country-specific trainings for civil society organizations to create demand for fortified products. This will also be informed by 2.1: identified countries struggling with compliance.

Proposed timeline: Q1 2019 – Q4 2021

Actual timeline: Q1 2019 – Q4 2021

Status: In progress

Outputs: Identify countries that would benefit the most from this; begin discussions with government regarding how to proceed; civil society group trainings occur; civil society groups conduct advocacy for fortification at a national level.

Outcomes: Civil society group advocacy efforts result in increased demand for fortified products as measured by a pre-post assessment.

This activity includes two components:

1. *Pull Project Lessons and Opportunities.* Understand lessons learned and experiences from the Pull Project conducted in Malawi and Uganda to identify opportunities for future Pull Projects in other countries. Funding outside of the Smarter Future's grant will be sought for building on the Malawi and Uganda experience to ensure required next steps are taken that will lead to improved rates of compliance.
2. *Engagement with and Training of SP&H Associations.* Engagement with country-specific spina bifida and hydrocephalus associations in order to build their capacity and train them on how to effectively engage and participate in fortification discussions and efforts. Ultimately the goal is for society group advocacy efforts resulting in increased demand for fortified products

Pull Project Lessons and Opportunities. The Pull Strategy Project was funded separately by GAIN, which piloted a pull strategy in Malawi and Uganda. This activity was included in the Smarter Futures workplan as a follow up to the Pull Project. In the implementation of the Pull Project, FFI conducted a landscape analysis of parent and civil society groups and built the capacity of civil society groups in consumer monitoring of fortified foods. The following were the **key results achieved** from the Pull Project:

- a. Awareness was created for consumer groups and parent groups on the impact of folic acid fortification in preventing neural tube defects created. The project demonstrated that consumers and the civil society have the right, the power, and the mandate to monitor the quality of products on the market. Therefore, their involvement in fortification monitoring at the market is in line with this mandate and it is legal.
- b. The milling industry became conscious that consumer groups and other civil society organizations can play a role in monitoring compliance of their products in addition to government regulatory agencies.
- c. Basic knowledge and skills were trained to consumer and disability groups on commercial monitoring of fortified foods.

Although much was accomplished, some short falls or challenges we encountered during the implementation which included:

- Few samples, industrial brands of fortified foods were collected and analyzed and the results could not be conclusively used to pin-down poorly fortifying industries.
- Limited number of vials were purchased for analysis of fortified foods.
- The first results were not used for media engagement but rather for internal corrective action by industries.
- The private sector engagement was not implemented in Malawi because they viewed it as not appropriate at the moment. For Uganda, however, it is ongoing.

- The media engagement strategy was differed due to a and lack of budget and the above shortcomings.

In order to have a sustained impact around increasing compliance of fortified foods in the two countries, the following **objectives** are proposed and will inform the Pull Project II activities and budget:

- Strengthen/increase the quality and quantity of commercial monitoring and reporting by civil society, consumer organizations, and disability groups through additional trainings.
- Ensure industries are held accountable for inadequate fortification and government enforces the regulation through media engagement.
- Develop and implement media engagement strategy by the consumer association and disability group.

Suggested next steps for the Pull Project can be found [here](#). This proposed work is not in the Smarter Futures budget.

Next Steps: Articulate key lessons learned from the Malawi and Uganda Pull Project; identify opportunities to scale through upcoming country mission trips.

Engagement with and Training of SP&H Associations. Currently, IF is working with Spina Bifida and Hydrocephalus Associations in Uganda, Malawi, Ethiopia, Nigeria, and Sudan. Activities include:

- a) Development of regular, short trainings with representatives of Spina Bifida Associations to increase their capacity to advocate for and monitor fortification efforts
 - a. Online meetings with Uganda and Malawi as follow-up to the Pull Project, preparing for mission to Uganda January 2019
 - b. Online meetings to start discussion in Nigeria and Ethiopia
 - c. Meetings and consultation with Dr. Aziza Mustafa Alnaeema, IF board member, and representatives of the Sudan Federal Spina Bifida Association on the planned fortification meeting for Q4 2019.
- b) Development of [country specific data base](#) of active knowledge management, from the perspective of a NTD prevention and the role of a parent / pwd association. Focus on policy development and monitoring.
- c) Outreach in Ethiopia for NTD epidemic
 - a. Follow up activities related to a January 2018: mission to Addis Abeba and Mekkele
 - b. Support for publications on NTD incidence.
 - c. Participation in ongoing discussions, preparing for the network meeting April 2019
- d) Direct technical support to the IF member organisations of technical resource persons at IF secretariat apart from Smarter Futures staff
 - Martine Austin: consultant, manager Global Prevention Initiative, to support members in development of advocacy strategy and follow-up with individual countries
 - Renée Jopp: staff member, IF Information Officer, to support members with country specific information on research, policy, publications

- Katalijne Van Diest, staff member, IF Development Cooperation officer, to work with our members on programme development, reporting, fundraising
- Lieven Bauwens, staff member, IF Secretary General to develop country specific advocacy capacity, political support
- Focus on country profile for Ethiopia and Uganda, others to follow.

Next Steps: Conduct country specific prevention clinics for SBH association every month / ad-hoc with member organisations in Africa in order to build a network of active, engaged and capable associations.

3.9 Facilitation of a workshop in Mozambique entitled 'Surveillance and Monitoring of Fortification Programming: Opportunities, Tools and Constraints'

Proposed timeline: Q4 2018 – Q1 2019

Actual timeline: Q2 2019

Status: [In progress](#)

Output: Clarity is provided on the various tools and their intended application; clarity is gained on the status of FORTIMAS implementation in Mozambique and what may have hindered or helped the roll out.

Outcome: Mozambique decides way forward in terms of which tools are more appropriate for their needs (FORTIMAS, FortifyMIS, otherwise).

After several attempts to formalize such a workshop in Mozambique, a final date was never agreed upon by the government. Instead, in January, FFI was contacted by another GAIN representative in Mozambique who requested a presentation be made to government on the FortifyMIS and support be provided for a subsequent agency mapping exercise to identify roles and responsibilities of government inspectors. Although a comparison will be made between the FortifyMIS tool and the FORTIMAS approach, the originally intended workshop entitled 'Surveillance and Monitoring of Fortification Programming: Opportunities, Tools and Constraints', will no longer be pursued. Instead, per the request of GAIN and the Government, a FortifyMIS introduction and inspector mapping exercise will take place.

Next Steps: Hold a phone call with Dr. Eduarda of the MoH in February; finalize a date in March for the presentation and mapping exercise. This trip will also provide an opportunity to gain a better understanding of the challenges that Mozambique may be facing in terms of establishing a robust fortification program. In this case, activity **3.10** will be accomplished:

3.10 Assessment of TA needed for Mozambique.

Proposed timeline: Q4 2019 – Q1 2020

Actual timeline: Q2 – Q4 2019

Status: [In progress](#)

Output: Training is provided to the government of Mozambique on identified monitoring and / or surveillance tool.

Outcome: Mozambique effectively monitors and / or conducts surveillance on their national fortification program based on new tools acquired.

See comments above.

Section 4: Global Resources for Effective Implementation

4.1 Assess all fortification trainings that currently exist and identify a single platform where these trainings can be made available in order to improve use and accessibility.

Proposed timeline: Q3 – Q4 2019

Actual timeline: Q3 – Q4 2019

Status: [In progress](#)

Output: A single, consolidated platform is identified and agreed upon by partners.

Outcome: Trainings are moved to this single platform.

Housing each of the trainings on one platform may prove to be a less than ideal solution. Instead, efforts are underway to make the trainings that FFI has access to more readily available to the general public. This is being done in two ways: 1) the Introduction to Micronutrients and Fortification Training is being moved to an online platform. Research is ongoing as to the best online platform to use. Research on best platforms available, a decision as to which platform to choose, and the transition of the training to the online platform will be complete by May 2019 and 2) discussions are ongoing with Kansas State University around how to make the GAIN/FFI/KSU training modules more readily available to individuals that may want to take the course as opposed to groups of 10 or more.

Next Steps: Complete the research on best online platform to choose; migrate the training to the online platform; finalize discussions with KSU re: individual training options.

4.2. Include one of the above-mentioned trainings in local university or milling school curriculum to provide the information to up and coming professionals.

Proposed timeline: Q2 – Q4 2019

Actual timeline: Q2 – Q4 2019

Status: [In progress](#)

Outcome: Trainings are included in at least two university curricula.

Output: Up and coming professionals use the fortification knowledge in future work as measured by a pre-post assessment.

Scott visited the IAOM headquarters office and Kansas State University in August, 2018. Excerpts from the trip report:

Multiple training courses and platforms are offered by IAOM and KSU; I will try and cluster these in a logical way.

IAOM training

- IAOM continues to offer the historical Correspondence Course which is eight modules and textbook material. The testing is done via paper or the KSU learning platform.
- IAOM has an exciting new program through Cowley College in Arkansas City, Kansas, offering a structured “Milling Technician” curriculum. This is a 32-credit hour distant learning curriculum which includes a 250-hour internship. It consists of 11 to 12 five-week modules, and six of the modules are specific to milling.

The IAOM Education Committee controls the topics at a broad level. Melinda has given FFI permission to have Tom send the ingredient and fortification content in both offerings for us to review and suggest any added content.

KSU/IAOM short courses

- Introduction to Milling
- Basic Milling
- Advanced Milling Principles
- Executive Milling

These courses are offered as a five-day curriculum on the KSU campus. Shawn teaches the first three, and Buhler teaches the Executive Milling short course. In addition, two five-day curriculums are taught in Italy back-to-back over a two-week period.

- Fundamentals of Milling I
- Fundamentals of Milling II

Shawn offered to share the specific curriculum that covers ingredients and fortification in the first three short courses. My understanding is that we need to liaise with Buhler to embed any fortification material in the Executive Milling course. As for the short courses taught in Italy, I believe a previous KSU professor Jeff Gwirtz teaches these courses. I need to follow through on how we may embed some fortification content in the Fundamentals training in Italy.

Kansas State University Milling Science and Management

This is a four-year degree offered by KSU. Fran is one of the key instructors of the milling specific curriculum. As a first step in the liaison with KSU, Fran offered to send all training material related to ingredients and fortification to FFI. We will look at the content and suggest any high-level additions. We will then follow through with Shawn, Buhler and Tom to leverage any synergies in the suggested content that we add to what Fran sends us.

Other schools with milling curriculum:

We also discussed the broadening of fortification training to other curriculums across Africa. Opportunities may exist in some of the following curriculums/schools:

- Buhler, Kenya (already integrated fortification with support from Technoserve; waiting to obtain the material being used)
- Morocco milling school (Quentin to review 2003 curriculum currently in use and update as necessary)
- Others listed on the IAOM website- <https://www.iaom.info/industry-resources/schools/>

Other schools outside of Africa to review include:

- Buhler, Switzerland
- North Dakota State University
- SIGI Canada
- China (three milling schools)
- Northern Crops Institute

Next Steps: We'll take this one step at a time following through with KSU and IAOM first, then try and prioritize other schools to possibly target.

4.3 Include FORTIMAS indicators into the FortifyMIS platform (funding would be cost-shared with another partner).

Proposed timeline: Q4 2018 – Q2 2019

Actual timeline: Q2 – Q4 2019

Status: **On hold**

Output: Identify project scope, which indicators should be included, and what the user interface should look like. Secure partner support and funding.

Outcome: FORTIMAS and FortifyMIS are included on the same platform to ease usage and allow for improved data aggregation and comparisons

It still remains to be determined whether or not the FortifyMIS is a useful and scalable tool for use in country-specific settings. Until this is determined, it does not make sense to pursue the inclusion of FORTIMAS indicators into the FortifyMIS platform.

Next Steps: Identify what needs to be done in order to scale the MIS so that it can be used independently in country-specific contexts for the intended purposes; implement these findings; measure progress towards independent use.

Section 5: Organizational Learning

5.1 Develop a system for regular feedback or monitoring of SF workshops including a more systematic follow-up on the usage of the tools, the progress made towards institutionalization, and commitments made by institutions.

Proposed timeline: Q4 2018 – Q1 2019

Actual timeline: Q4 2018 – Q1 2019

Status: In progress

Outputs: Pre-post training tools developed and SF workshops are assessed regularly using pre-post training knowledge tests.

Outcomes: Results from the pre-post assessments are used to improve SF workshops.

Pre- and post-training tools were developed for the SADC workshop and will be used in all subsequent Smarter Futures workshops moving forward. Tools for measuring usage of techniques, institutionalization of knowledge, and institutional commitments six months after the workshop will be developed after the post-workshop assessment has been analyzed. The results from this analysis will inform the 6-month follow-up questions.

Next Steps: Develop workshop assessments to measure 6-month post-workshop effectiveness to be completed by May 2019.

Section 6: Develop and Expand Rice Fortification Strategies

6.1 Continue the West Africa rice fortification regional efforts to scale up rice fortification in Africa.

Proposed timeline: Q4 2018 – Q1 2021

Actual timeline: Q4 2018 – Q1 2021

Status: In progress

Outputs: Identify a specific dollar amount needed over a specific period of time to accomplish a core set of priority activities that will scale this effort; establish collaborative network of partners needed to achieve the core outcomes

Outcomes: Funding proposal is finalized; core set of activities identified as priorities amongst partners; timeline set for completing these activities.

At the request of WFP, presentations were made by FFI in Cote d'Ivoire and in Senegal on the effectiveness of rice fortification. A mission trip was also made to Nigeria to update current information on domestically produced and imported rice into the country and to discuss with government what potential next steps might be in the development of national or regional rice fortification standards. A summary of the Nigeria trip findings and recommended next steps is provided below.

Following the Nigeria, Senegal, and Cote d'Ivoire trips, a partner meeting was held between WFP, FFI, and GAIN to discuss next steps for rice fortification based on discussions and findings to date. Although this discussion will continue at the Smarter Futures Steering Committee Meeting in February, general consensus was that there is a need for regional rice fortification standards both for importers to follow and for the few domestic producers of rice namely in Senegal and Nigeria to follow as voluntary standards. Additionally, all three governments were interested in a cost benefit analysis for rice fortification to demonstrate the need for such an investment.

Next Steps: The February Smarter Futures Steering Committee Meeting will provide an opportunity for partners to discuss what we know to date in West Africa re: rice fortification opportunities and needs and what a coordinated approach to next steps might look like including how activities will be funded.

Key Findings: Nigeria Trip Report (20-27 November 2018)

- Nigeria's government is putting in place numerous measures to increase the production of domestically grown rice to increase availability, bring down the cost for millers, and increase the country's self-sufficiency.
- The cost of paddy (unmilled) rice for milling industries is one of the biggest challenges in the adoption of domestic rice fortification.
- Rice productivity is increasing, but it will take a few years to achieve the goal of 5-6 metric tons (MT) / hectare. Although that is still considered low, but it is higher than the current productivity of 2-3 MT/hectare.
- Nigeria has not banned all imports but has restricted them to seaports. Enforcing the land restriction is the biggest challenge. Imports are actually increasing over land from Benin.
- Currently, 67% of rice is domestically produced (*Rice Farmers Association of Nigeria*). This leaves 33% of milled rice imported in Nigeria (both officially and unofficially). This compares to our original supply chain estimates from 2016 of 60% and 40% respectively. Smallholder farmers account for 80% of commercial rice production in Nigeria.
- Strong industry buy-in for rice fortification currently exists with one large producer, Olam, which has already attempted rice fortification. Olam needs standards to follow, however.
- In addition to the existing 24 large-scale rice mills, the government of Nigeria is supporting the establishment of 10 large-scale rice milling industries. The government will have a say in what goes on within the mills so it may be an opportunity to introduce rice fortification. However, cost questions remain.

Recommendations

- The prospects for rice fortification in Nigeria are high due to the volumes involved in consumption, which is on the increase, and government support to increase the quantity and quality of local production.
- With the restriction on imports and consequently reducing volumes of official imports, the earlier target of partners supporting Nigeria to import fortified rice may need to be revisited. The prospects look more in promoting local rice fortification, starting with imported kernels and eventually with local production of fortified kernels.
- It may take some time for government to put in place regulations for mandatory fortification of rice although the good will seems to exist. The industries should be encouraged and supported to start rice fortification on voluntary basis.

- Some of the large industries are willing to voluntarily fortify rice but they require standards they can follow, either national or regional. Stakeholders have suggested working directly with industry from the start due to their existing support and buy-in.
- Government to make all its 10 new mills to fortify as a prerequisite for public private partnership.
- Immediate Next Steps: (a) Convene a Director Generals meeting in early 2019 to discuss the need for rice fortification standards and to engage the standards body to commence the process of standard setting, (b) undertake a cost-benefit analysis to advocate to government to buy into mandatory rice fortification.