

A conversation with the Greg Garrett, Karen Ziffer, and Alem Abay, June 9, 2015

Participants

- Greg Garrett – Director, Large-Scale Food Fortification, The Global Alliance for Improved Nutrition (GAIN)
- Karen Ziffer – Director, US Office, GAIN
- Alem Abay – Ethiopia Country Manager, GAIN
- Timothy Telleen-Lawton – Senior Research Analyst, GiveWell
- Benjamin Rachbach – Research Analyst, GiveWell

Note: These notes were compiled by GiveWell and give an overview of the major points made by GAIN.

Summary

GiveWell spoke with Mr. Garrett, Ms. Ziffer, and Mr. Abay of GAIN about its work on universal salt iodization (USI) in Ethiopia as part of its review of GAIN as a potential top charity. Conversation topics included GAIN's role in establishing a revolving fund of potassium iodate (KIO₃) in Ethiopia, its recommendations to salt producers for quality improvements, and its role in supplying iodization machinery.

Revolving fund for KIO₃

The establishment of a revolving fund to supply KIO₃ to Ethiopia's salt producers was an important development in the country's salt industry. Before the fund was created, the country's KIO₃ supply relied on one-off donations. GAIN's belief that this system was unsustainable and that the salt industry was able to pay for its own KIO₃ led it to push for the establishment of the revolving fund.

GAIN's role in starting the revolving fund

GAIN produced a feasibility study on the creation of a revolving fund to put in place a sustainable cost recovery system that will relieve the government from excessive reliance on external donation.

GAIN believes that if it had not produced this study and advocated for the revolving fund, no sustainable system for KIO₃ procurement would have been instituted, or at least it would have taken a longer time to institutionalize.

After the assessment, the fund was established and the cost recovery system became fully operational. The government is now considering transferring the responsibility for procurement of KIO₃ to the salt industry.

Challenges to the revolving fund

Salt producers in Ethiopia operate on a quota system, so they cannot respond to market forces by producing more or less salt. They can only receive as much KIO₃ as they have been allotted based on the salt production quota.

Monitoring of KIO₃ usage

Information on salt producers' use of KIO₃ is obtained in two ways:

- A government system of checkpoints, by which salt from all producers is checked for iodization before it enters the market.
- Self-reporting from salt producer associations on how much salt they expect to produce and how much KIO₃ they will need, according to their monthly quotas. The Federal Ministry of Health (FMoH) summarizes this information in a report to GAIN and distributes KIO₃ based on the information it receives from producers.

Government cross-checking

The government performs its own quarterly inspections to confirm producers' reports at the *woreda* (district) level. The Food, Medicine, and Health Care Administration and Control Authority of Ethiopia (FMHACA), the government's regulatory body for iodization, records data about the quantity of salt entering the market and its origins after taking samples of salt from each transport truck. In principle, uniodized salt cannot legally be sold in Ethiopia, and because FMHACA checks each truckload of salt to make sure it is iodized, GAIN knows that producers are iodizing their salt, though by and large they are not using robust methods of iodization.

GAIN's work with salt producers

Development of recommendations for producers

GAIN provides recommendations to producers on how to improve their processes. GAIN uses a quality assurance/quality control manual that suggests practices for salt producers, but the manual is aimed at large industrial-scale producers, which currently do not exist in Ethiopia except one larger scale iodization facility in Afdera, which is only producing 30% of its full capacity due to the quota system. Therefore, GAIN develops recommendations in collaboration with each producer for how to address quality issues or make structural adjustments. The consultations with producers are conducted by a USI associate from GAIN, as well as consultants from the Iodine Global Network (IGN).

Implementation and monitoring of recommended practices

GAIN conducts follow-up inspections at each of the six salt production sites where it works to ensure that the recommendations are carried out. GAIN finds that the producers usually comply with the recommendations with the exception of Afdera salt producers.

Ensuring compliance with recommendations

The primary incentive that salt producers have to comply with GAIN's recommendations is increased access to markets. Salt producer associations have

certain quality requirements, and their salt buying committees will reject salt that is not up to their standards. For example, salt may be rejected if it is inadequately dried, if it contains too many impurities, or if it contains no iodine. Some of these quality issues, such as the presence of impurities or improper packaging, can also affect iodization levels, since they can cause salt to lose iodine. However, most salt producers have no iodization equipment that is able to ensure adequate concentration of iodine in salt, so there is no way to enforce adequate iodization. Compliance starts with the processes of iodization, so any non-robust method of iodization cannot be expected to make miracles.

Encouraging adequate iodization of salt

The majority of salt in Ethiopia is not adequately iodized salt. Producers want to produce adequately iodized salt, but the technology available to most of them (i.e., knapsack-based manual sprayers) cannot guarantee it.

FMHACA is mandated to take some action if salt does not meet minimum requirements. It gives warnings to producers, sends back shipments of uniodized salt, and, along with GAIN, provides training to producers. However, Ethiopia lacks a high-level mechanism of enforcement, which would include punitive measures such as banning producers from the market if their salt is not adequately iodized. Although at times salt has been rejected for inadequate iodine levels, it is not feasible to discard all inadequately iodized salt or to re-iodize it.

Records of iodine levels before and after GAIN's interventions

Some salt producers have records of the iodine levels in their salt, which GiveWell can view on a visit to Ethiopia. In the Afar region, where adequate iodization is still a work in progress, it is not possible to get this information.

Impact of iodization machinery funded by GAIN

Adoption of machines

GAIN has worked with the Ethiopian government to subsidize the cost of iodization machinery for salt producers. The producers in the God-Usbo region within the Somali Region and the Shewit Salt Producers Cooperative in the Tigray Region use the machinery consistently throughout the year. In Afar, salt production is reduced between mid-May and September due to the extreme heat, and the machines are not fully used in those months. The harsh conditions in Afar make machine maintenance more difficult. GAIN is now trying to improve access to the machines by supplying tractors.

Shortcomings of the machines

Making small Davey iodization machines available to all 400 salt producers is not feasible, and monitoring quality among all the producers is also a significant challenge. For these reasons, GAIN believes that the government should invest in helping producers scale up to industrial-level production, including by establishing a central iodization facility to iodize a large portion of the country's salt in one place.

Monitoring machine use

GAIN can verify if the machines are being used based on reports from producers and health care professionals, sending its field supervisors to perform random checks, and seeing the machines in action on scheduled visits.

Machine malfunctions

Producers are responsible for maintenance of the machines. So far the only malfunction has been a broken pump in the Somali Region, which GAIN fixed because the producers did not know how to repair it. If other machinery were to break down, the producers would inform GAIN of the problem. Because the only malfunction was with the pump in the Somali Region, there has thus been no real opportunity so far to monitor producers' ability to repair the machines.

Contribution of the machines to salt production

Together, the six machines produce an estimated 24–26% of Ethiopia's salt requirements. This estimate is based on the machines' capacity, not on recorded production. It is prorated to take into account the months during which production is reduced or halted in Afar due to the heat; during other times of year, the machines work overtime.

The production figures that GAIN has access to do not break down how much salt is produced by machinery and how much is produced by knapsacking. It is therefore possible that some of the salt production attributed to machinery actually comes from knapsacking. Salt producers in the Somali Region and Shewit, but not Afari salt producers, have made much more use of iodization machinery within the past two to three years. Five to 10 years ago, when KIO_3 was still fully subsidized, donated iodization machinery was generally not used.

Other impacts of GAIN's work

One of the goals of GAIN's work in Ethiopia has been to promote the idea of iodine deficiency as a public health problem to the public in collaboration with both the government and GAIN's partners. Two to three years ago, very little salt was iodized, but through the ongoing work of GAIN, UNICEF, and MI with the government, coverage of iodization has significantly improved. Though it is very difficult to quantify GAIN's contribution by attributing impact to GAIN, GAIN believes that it has done a remarkable job to improve iodization in Ethiopia. This required many meetings with salt producers and joint visits to producers along with the government, UNICEF, MI and research institutions. Today, producers ask GAIN for advice and tractors to help them access iodization machinery, which GAIN sees as an indication of increased interest in iodization activity as the government threatens to enforce the law strictly.

Additional possible areas for evaluation

Mr. Garrett suggested that three aspects of GAIN's work would be useful for GiveWell to study further in its overall assessment of the organization:

- GAIN's monitoring and evaluation (M&E) portfolio on its USI work, including recently developed indicators, the rollout of endline surveys, and GAIN's work with governments and agencies on M&E procedures
- GAIN's work studying potential benefits and methods of incorporating iodized salt in processed foods, a promising area of future investigation
- A case study of GAIN's USI program in India, similar to the case study presented of the Ethiopia program

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